ABOUT THIS INSTRUCTOR'S MANUAL AND TEST BANK

This instructor's manual and test bank provides suggested learning activities and test questions for Chapters 1 through 13 of the textbook.

I. Learning Activities

The suggested learning activities feature short-term group projects or hands-on activities to reinforce major concepts and issues from each chapter.

II. Test Bank

The test bank includes multiple-choice and essay questions for each chapter. The multiple-choice items have been developed to assess both basic and higher level learning. The essay questions are integrated and process-oriented.

Directions for the Test Bank Items

Although students are likely to be familiar with both multiple-choice and essay exam formats, it is still a good idea to provide clear instructions for how to respond to your questions. Here are examples of directions for exams that contain a mix of multiple-choice and essay questions:

> For hand-scored exams:
>
> Directions. Read each question and all alternatives carefully. For multiple-choice questions, circle the letter that corresponds to the one best answer. For essay questions, use the space provided and the backs of pages to write your response. Make sure you understand each question before you attempt to answer it. If you have questions about the items on the exam, ask for clarification. If you want to explain your thinking about any item on the exam, you may write a note to me on the exam.
>
> For machine-scored exams:
>
> Directions. Read each question and all alternatives carefully. For multiple-choice questions, blacken the circle that corresponds to the one best answer. For essay questions, use the sheet(s) of paper attached to your answer sheet to write your responses. Make sure

you understand each question before you attempt to answer it. If you have questions about the items on the exam, ask for clarification. If you want to explain your thinking about any item on the exam, you may write a note to me on the exam.

In addition to receiving these directions, students should be informed of point values for all items. This information is particularly important for essay questions, as it allows students to make strategic decisions about how to spend the available time.

Guidelines for Scoring Tests

An answer key, which includes model responses for the essay questions, is provided after each chapter's test bank items. Scoring of multiple-choice items is fairly straightforward. You may want to keep a running tally of the specific incorrect answers chosen by your students as you score their exams. This simple method of item analysis will allow you to make informed decisions about the fairness of any particular item for the group being tested. It may also offer insights for future instruction or item revisions. If you allow students to defend their multiple-choice answers, you will need to make some judgments about whether a student understands the concept being tested in spite of choosing an incorrect response.

Scoring responses to the essay questions will be more subjective and time consuming. Model answers are provided to assist you in scoring essay responses in a consistent and reliable manner. However, these criteria may need to be revised or expanded to match what was actually presented, emphasized, or discussed in your classes.

TABLE OF CONTENTS

Chapter 1 The Nature and Tools of Research5

Chapter 2 The Problem: The Heart of the Research Process.....10

Chapter 3 Review of the Related Literature.....15

Chapter 4 Planning Your Research Project 22

Chapter 5 Writing the Research Proposal 28

Chapter 6 Descriptive Research.....32

Chapter 7 Experimental, Quasi-Experimental, and Ex Post Facto Designs.....38

Chapter 8 Analyzing Quantitative Data 44

Chapter 9 Qualitative Research Methods.....50

Chapter 10 Historical Research.....55

Chapter 11 Analyzing Qualitative Data.....59

Chapter 12 Mixed-Methods Designs.....62

Chapter 13 Planning and Preparing a Final Research Report.....66

Answer Key.....71

Chapter 1

The Nature and Tools of Research

The purpose of this chapter is to get students to think critically about what constitutes research. To further familiarize students with the research literature, try this exercise. It will help them understand what research is and the many forms it may take.

Ask students to bring copies of one or two research articles they've read recently to class. This will create a pool of articles to work with. Chances are the pool will include review articles, meta-analyses, theoretical pieces, and empirical studies employing both quantitative and qualitative methodologies. To the extent that the class includes students from a variety of fields, the pool will represent these diverse fields. If there are certain types of articles that you particularly want included in the sample pool, or that you anticipate will be missing from the pool, you may want to provide these.

Place students into groups of about five. Make these groups diverse by field to the extent possible. Without providing any opening discussion about the nature of research, ask students to look through their group's collection of articles and determine how they are similar to each other and how they differ. After groups have explored the articles and attempted to classify them on various criteria, conduct a discussion of the content of Chapter 1. Returning to the pool of sample articles, assist students in identifying what types of articles are in the sample pool and which of the articles are true research as described in Chapter 1.

I suggest collecting the articles from class members at the end of the activity to keep on hand for use throughout the course. I make additional suggestions for their use in conjunction with subsequent chapters.

Chapter 1

The Nature and Tools of Research

Multiple-Choice Questions

1. To be considered true research, a project must:
   a. gather together a body of existing information and communicate it in a clear and concise way.
   b. uncover obscure or esoteric information and bring it to the consideration of the broader research community.
   c. gather and interpret information in a systematic fashion so as to increase understanding of some phenomenon.
   d. produce definitive conclusions regarding the subject of study.

2. Which of the following examples illustrates research as it is described in your textbook?
   a. Sally is writing a paper about the effects of the Harry Potter books on the reading habits of fourth graders in the United States and United Kingdom. She goes to a research library to find information to include in her paper.
   b. Ian wants to know why the population of songbirds has declined in recent years in the Sutton Wilderness Area. He carefully collects soil and water samples, systematically surveys the entire area for predators, and then sits down to make sense of his findings.
   c. Leonard is starting a woodworking business and is not sure how to calculate the cost of his labor so he can be both profitable and fair to the customers. He asks several established business owners how they calculate labor changes.
   d. Bill is doing a report on the sonnets of Shakespeare. He carefully reads a number of sonnets and then carefully reads scholarly reviews of those same sonnets written by various Shakespeare scholars. He synthesizes all of this information in his report.

3. Research is considered *cyclical* because:
   a. the researcher articulates the goals of the project and then collects data to solve a particular problem.
   b. questions lead to data collection which leads to interpretations and then to new problems.
   c. it has a number of steps that should be followed in order.
   d. it is based on solving problems and subproblems in a systematic, unbiased way.

4. Cameron is conducting a study that addresses the differences in achievement scores between schools that use block scheduling and schools that use a traditional scheduling format. He has accessed

average achievement scores for 1200 schools and now is comparing the two groups. In which research step is Cameron engaged?
a. Recognize and identify a problem
b. Interpret the meaning of the data
c. Analyze the collected data
d. Develop a specific plan to address the problem

5. Which of the following is most likely a statement made by a qualitative researcher?
a. I would like to interview a few of the participants to understand their training.
b. I would like to give participants a test to determine their skill level.
c. I would like to use teacher ratings to see if the program worked.
d. I would like to control which students get the training so we can compare groups of children that did and did not get training.

6. Which of the following is most likely a statement made by a quantitative researcher?
a. Let's follow the groups for the course of the project and take notes about their social interactions and dialogues.
b. Let's conduct some focus groups with college students about the types of cooperative learning they have encountered in their schooling.
c. Let's compare unit test scores of those who were placed in cooperative groups and those who were not.
d. Let's enroll in a course that uses cooperative groups and observe the nature of the instruction from a student perspective.

7. The philosophical assumption that objective scientific research can uncover true cause-and-effect relationships in the world is known as:
a. empiricism
b. positivism
c. experimentation
d. realism

8. Qualitative researchers most commonly (but not exclusively) align with which of the following philosophical approaches to research?
a. positivism
b. postpositivism
c. constructivism
d. empiricism

9. A specific mechanism or strategy the researcher uses to collect, manipulate, or interpret data is known as a:
a. research tool.
b. research method.

c. statistical test.
d. theory.

10. Research methodology refers to:
a. the general approach the researcher takes to conducting a research project.
b. a specific device the researcher uses to collect data.
c. the specific theoretical basis of the research project.
d. the statistical tests to be employed in a research project.

11. The primary purpose of inferential statistics is to:
a. organize and summarize the data.
b. turn qualitative data into meaningful numbers that can be interpreted.
c. measure social and psychological phenomena in an unbiased way.
d. help the researcher draw conclusions from the data.

12. Kade has spent the past month carefully observing a group of third graders on the playground during recess, taking note of how the students interact with one another. On the basis of these observations, Kade is drawing conclusions about the interaction styles of boys and girls. This is an example of:
a. theory building.
b. deductive reasoning.
c. inductive reasoning.
d. the scientific method.

13. Kimberly knows that teenagers often do not make good decisions in areas where they have little knowledge. She also knows that most teens have little knowledge about human sexuality. Therefore, Kimberly believes that teens are likely to make poor decisions about sexual activity. This is an example of:
a. inductive reasoning.
b. theory building.
c. problem solving.
d. deductive logic.

14. Having completed a series of studies for her dissertation, Marianela sits down to brainstorm about possible explanations for her key findings. She can see a variety of ways in which all data work together, and she prepares to write a final chapter in which she presents those ideas. We would most likely say Marianela is engaged in the process of:
a. science.
b. theory building.
c. constructivism.
d. deductive reasoning.

15. The primary reason to seek research articles published in academic journals, rather than those posted by the author on the Internet, is that:
    a. they have been carefully selected after an extensive review by experts.
    b. they are more likely to follow the scientific method.
    c. they tend to focus on the most important topics in the field.
    d. they are more objective and show fewer pitfalls in human reasoning.

Essay Questions

16. Describe an example of the word *research* being used inappropriately. Be clear about how your example deviates from the definition of research offered in the chapter.

17. Graduate professors like to insist that the completion of thesis or dissertation research is not merely an "academic exercise" or final hurdle to obtaining the desired degree. Explain at least one personal benefit that the individual derives from completing a high- quality thesis or dissertation. Then explain at least one societal benefit that follows from the individual's completion of a high-quality thesis or dissertation.

18. Do recent technological advances (e.g., the World Wide Web, electronic databases) assure that future research will be of higher quality, or of greater utility, than past research? Support your answer.

Chapter 2

THE PROBLEM: THE HEART OF THE RESEARCH PROCESS

Students are likely to benefit from practice at formulating research problems. This group activity will help students move from identifying a topic or question of interest to clearly communicating a research problem that can serve as the foundation of a formal investigation.

Form groups of three to five students who share common research interests. Ask each group to formulate a formal statement of a research problem. In doing so, the students will need to consider the importance and practicality of the general research problem. Then they will need to identify subproblems, pose hypotheses, define terms, and state assumptions related to the research problem. Although students may lack a deep familiarity with a body of professional literature and may thus be somewhat limited in their ability to work through all of these steps, the exercise will impress upon them how complex the task of research problem formulation is when done properly. Ask each group to hand in a detailed document at the end of the activity.

The research problems formulated in this exercise will be a good basis for the group activity recommended for later chapters. Therefore, you may want to make note of group membership from this activity and collect the research problem exercises for later use.

Chapter 2

THE PROBLEM: THE HEART OF THE RESEARCH PROCESS

Multiple-Choice Questions

1. *Basic* research is:
   a. research intended to enhance basic knowledge about the physical, biological, psychological, or social world or to shed light on historical, cultural, or aesthetic phenomena.
   b. large scale research performed under contract with a governmental agency such as the National Science Foundation (NSF), National Institute of Mental Health (NIMH), etc.
   c. informal research conducted locally by a small staff with a small budget, the purpose of which is to pave the way for larger research initiatives.
   d. research intended to address issues that have immediate relevance to current practices, procedures, and policies.

2. *Applied* research is:
   a. research intended to enhance basic knowledge and theoretical reasoning about the world.
   b. large-scale research performed under contract with a governmental agency.
   c. informal research conducted by a small staff with a small budget, designed to shed light on a problem of local interest.
   d. research that informs human decision making about immediate, practical problems.

3. Which of the following represents a well-written *basic* research problem?
   a. "Which general education course is more interesting, U.S. History or World Music?"
   b. "How do business teams of six or fewer members compare to teams of more than six members in terms of productivity?"
   c. "How does the organization of mathematical information in long-term memory differ between 3-year-olds and 13-year-olds?"
   d. "What is the ratio of native-born students to international students on the campuses of major U.S. state universities?"

4. Which of the following represents a well-written *applied* research problem?
   a. "How does the organization of mathematical information in long-term memory differ between 3-year-olds and 13-year-olds?"
   b. "How do business teams of six or fewer members compare to teams of more than six members in terms of productivity?"

c. “Which general education course is more interesting, U.S. History or World Music?”
d. “What is the ratio of native-born students to international students on the campuses of major U.S. state universities?”

5. Three of the following questions lend themselves well to research. Which one does NOT?
   a. “How does the organization of mathematical information in long-term memory differ between 3-year-olds and 13-year-olds?”
   b. “How do business teams of six or fewer members compare to teams of more than six members in terms of productivity?”
   c. “Does message medium, print versus television, impact the effectiveness of public service health messages?”
   d. “Which general education course is more interesting, U.S. History or World Music?”

6. Three of the following are characteristics of a well-written research problem. Which one is NOT?
   a. The problem statement includes the researcher’s hypothesis.
   b. The problem statement clearly delimits the object(s) of study.
   c. The problem statement identifies the important factors to be investigated in the study.
   d. The problem statement explicitly identifies assumptions.

7. “What proportion of workers hired by selected factories in the state of Oklahoma between 1995 and 2000 held four-year college degrees?”
   The chief weakness of this research problem is that:
   a. it lacks clarity or completeness in the problem statement.
   b. it implies only description of the data, not interpretation.
   c. it does not lead to the creation/discovery of new information.
   d. studying the question as stated is not feasible.

8. “What do underemployed U.S. workers (i.e., those workers who are employed, but not in positions for which they have specialized training or expertise) identify as the primary reason for their inability to find suitable employment?”
   The chief weakness of this research problem is that:
   a. it lacks clarity or completeness in the problem statement.
   b. it does not lead to the creation/discovery of new information.
   c. it implies only description of the data, not interpretation.
   d. studying the question as stated is not feasible.

9. “What is the correlation between an index of civic-mindedness and years of involvement in local organizations and charities among members of city councils of selected midsized cities in the northeastern United States?”

The chief weakness of this research problem is that:

a. it implies only description of the data, not interpretation.
b. it does not lead to the creation/discovery of new information.
c. it lacks clarity or completeness in the problem statement.
d. studying the question as stated is not feasible.

10. "Among social workers in selected U.S. urban areas, are the personality characteristics of Need for Structure or In-Group Preference related to prejudicial social judgments about African Americans, Latino Americans, or Asian Americans?"

Which of the following is a well-stated subproblem that follows from this research problem?

a. Which group is more discriminated against by the public at large in each of the selected areas: African Americans, Latino Americans, or Asian Americans?
b. What is the most valid existing measure of In-Group Preference?
c. What is the relationship between an index of Need for Structure and an index of prejudice targeting attitudes about Asian Americans among the selected social workers?
d. Which analytic technique is best suited to addressing the research problem, multiple regression or path analysis?

11. Which of the following represents a null hypothesis?

a. Class A high school basketball teams who employ a sports psychologist will have a higher proportion of wins over the course of the season than comparable teams who do not employ a sports psychologist.
b. There will be no difference in rate of skill improvement between college gymnasts who practice meditation and those who do not.
c. Does incorporating relaxation exercises into the daily practice routine of college vocal majors enhance their performance confidence?
d. None of the above

12. Which of the following represents a research hypothesis?

a. Class A high school basketball teams who employ a sports psychologist will have a higher proportion of wins over the course of the season than comparable teams who do not employ a sports psychologist.
b. There will be no difference in rate of skill improvement between college gymnasts who practice meditation and those who do not.
c. Does incorporating relaxation exercises into the daily practice routine of college vocal majors enhance their performance confidence?
d. None of the above

13. Lucy examined relationships between middle-school students' self-esteem and their performance in Mathematics. Her data analysis

indicated that students with higher self-esteem perform better than those with lower self-esteem. Her investigation further revealed that students with higher self-esteem are more willing to invest effort in solving Math problems. In this case, the amount of effort is

a. An independent variable
b. A dependent variable
c. A mediating variable
d. A moderating variable

14. Research suggests that children who eat hot breakfast at home perform better at school. Many argue that not only hot breakfast but also parental care of children before they go to school has an impact on children's performance. In this case, parental care is

a. An independent variable
b. A dependent variable
c. A mediating variable
d. A moderating variable

15. Imani analyzed data and found that explicitly teaching reading strategies improves students' performance on standardized tests. In this study, explicit teaching of reading strategies is

a. An independent variable
b. A dependent variable
c. A mediating variable
d. A moderating variable

16. Marcos's study suggested that elementary students who watch TV more than three hours a day are more likely to be overweight than students who watch less TV. In this study, students' weight is

a. An independent variable
b. A dependent variable
c. A mediating variable
d. A moderating variable

17. Anneka ends her research proposal by introducing several variables that she does NOT plan to study, along with an explanation of why she's not studying them. When she presents her proposal to her research committee, her primary advisor is most likely to say:

a. Be sure to include operational definitions for these variables.
b. Take that section out; focus only on what you intend to do in this study.
c. It's good that you've identified the delimitations of your study before you begin.
d. Don't let your personal biases interfere with your plans; remain as objective as possible.

Essay Questions

18. Why is it important that the researcher articulate, as clearly as possible, all assumptions that affect the research problem?

19. Daphne has been a member of a research team studying interpersonal aggression among preschoolers for more than a year. In that time, her team has repeatedly employed a consistent set of techniques and procedures to study preschoolers as they interact in a number of settings. The procedures revolve around volunteer mothers bringing their children to the university child development lab for a "play session" that is the basis of the formal observations. Settings they have studied so far include: the university pre-school, affluent local day-care centers, and a pre-kindergarten program being offered in the neighborhood school district. All of these settings were fairly racially homogenous.

    Daphne has just learned that a friend of a friend can help her gain research access, in the near future, to preschoolers in an unusually racially diverse though impoverished preschool setting. Daphne decides she has no time to prepare a formal research proposal before embarking on the study. "Besides," she thinks, "this study should go just like all the others we've done."

    Is Daphne leaving herself open to problems in this situation, or is she safe moving ahead with no formal proposal, given how familiar she is with the study techniques and procedures?

Chapter 3

REVIEW OF THE RELATED LITERATURE

The purpose of this chapter is to familiarize students familiar with a variety of ways to access information for the literature review. Although the majority of students are likely to claim familiarity with searching professional electronic databases, many will be as novices at this skill. An opportunity to access a professional electronic database and conduct a focused search of that database with the support of a small group of peers or the instructor will be valuable for many students.

Form groups of about three students who share similar research interests. Have these students identify a question of interest (for the purposes of the activity) and then search appropriate electronic database(s) for relevant information. It may be necessary to remind students periodically that the identified question should guide the search, not the other way around. It is not uncommon for novice researchers to lose focus as they encounter a large number of interesting, but maybe only peripherally relevant, articles.

The groups of students and their research problem statements from the Chapter 2 activity would also be a good starting point for this exercise.

Chapter 3

REVIEW OF THE RELATED LITERATURE

Multiple-Choice Questions

1. The primary purpose for completing a thorough literature review as part of a research study is to:
   a. become an expert in your area of interest.
   b. provide evidence that your hypothesis is correct.
   c. help you interpret your own findings.
   d. point you toward the proper method to use.

2. Jane wants to search for information about the variety of attention disorders that are seen in childhood. Which of the following sets of keywords would best get Jane started on an effective and efficient search?
   a. “attention disorders”
   b. “ADHD,” “ADD,” and “children”
   c. “disorders” and “children”
   d. “attention disorders” and “children”

3. A well-structured literature review:
   a. contains highly detailed descriptions of each work chosen for inclusion in the review.
   b. begins with those studies most closely related to the research problem, then opens up to a broader perspective.
   c. begins with broad/general information, then narrows the focus to those studies most closely related to the research problem.
   d. contains general summaries of each work chosen for inclusion in the review.

4. The review of the literature can be curtailed when:
   a. you are no longer encountering new ideas or information.
   b. all of the work done by top researchers in the area has been reviewed.
   c. all published work related to a topic has been reviewed.
   d. two to four weeks have been devoted to the search.

5. A well-written literature review:
   a. avoids evaluation or critique of the literature reviewed, so as not to bias the opinion of the reader.
   b. emphasizes critique and synthesis of the work of others that is related to your own research problem.
   c. avoids summarizing the work of others so that details of the original work are not lost in the reviewing process.

d. emphasizes detailed reporting of each piece of research included in the literature review.

6. Typically, the literature review should:
   a. include few or no works more than five years old to avoid having the work become prematurely obsolete.
   b. be limited to work coming out of the very best labs and universities in the country.
   c. give a broad overview of the area, without getting bogged down in the details of particular studies or theoretical perspectives.
   d. emphasize how the studies being reviewed are related to the research problem under consideration.

7. While reading articles published in refereed journals about her research topic, Georgia repeatedly comes across references to a series of studies by one particular researcher. She's unable to find those references in the collections of her university library. Her best plan of action would be to:
   a. Summarize the research, noting the references were "cited by" the articles she did read.
   b. Include the references in her reference list but not cite them in the text.
   c. put in a request through the library loan program.
   d. Search the Internet for copies that may have been posted.

8. Shar has read only about 20 refereed articles that relate to her primary research topic, but she's finding that they tend to focus on the same basic patterns and arguments. Her best plan of action at this point is to:
   a. stop reading; it's time to bring the literature review to a close.
   b. reconsider her search terms and look more broadly for additional research articles.
   c. search for non-refereed articles that may contain useful information.
   d. email the authors of the articles she's found and ask for additional sources.

9. The best way to organize a review of the literature is:
   a. Chronologically, with the earliest research first.
   b. Chronologically, with the most recent research first.
   c. Thematically, with an emphasis on how the literature relates to your question.
   d. Critically, identifying flaws in previous studies that make your question relevant.

10. While reading and taking notes on research in her area of interest, Dana wrote down quotations from each article, along with the page

numbers. As she begins to synthesize the information and write her literature review, her best strategy is to:

a. include the quotations and their sources to ensure she's correctly representing the previous findings.
b. paraphrase the quotations to demonstrate she understands the content. If it's paraphrased, she does not need citations.
c. use key quotations, with full references, and then explain what they mean in the context of her research.
d. summarize the main points in her own words and include the relevant citations to the original work.

Essay Questions

11. Describe three benefits of conducting a thorough review of existing literature before writing a research proposal.

12. Kirby is conducting a literature review in preparation for his study of "expectations regarding the sharing of financial and practical responsibilities among married and cohabiting couples in which both partners are between the ages of 20 and 29." Conducting a keyword search on "couples" and "responsibility," Kirby has generated a lengthy list of research articles. He decides to shorten the list of potential articles by eliminating all articles that were not published in prestigious research journals. He will include all the remaining articles in his literature review. What is your opinion of Kirby's approach to selecting articles for the literature review? Explain.

13. You are reading a literature review written by a novice researcher in your field. You notice that the researcher seems to have relied heavily on an Internet search while conducting the literature review. Your hunch is supported when you glance at the reference page and find a long list of Internet addresses. What goes through your mind regarding the quality and adequacy of the literature review in this situation?

Chapter 4

PLANNING YOUR RESEARCH PROJECT

This exercise gives students experience working through the complexities of planning a well-designed study. As a starting point, return to the groups of students and their research problems from the Chapter 3 exercise.

Have students work in their groups to identify (a) appropriate methodologies (quantitative or qualitative) for exploring the research problem or subproblems previously identified and (b) appropriate measurement instruments. Students can also be asked to discuss possible threats to internal and external validity in their chosen approach. Last, but not least, students will need to review their plan to assure that the study is being conducted in an ethical manner. Ask each group to hand in a detailed written document at the end of the activity.

Chapter 4

PLANNING YOUR RESEARCH PROJECT

Multiple-Choice Questions

1. Three of the following accurately characterize data. Which one does NOT necessarily characterize data?
   a. Data may be elusive.
   b. Data can be volatile.
   c. Data are ever changing.
   d. Data reveal truth.

2. Charlotte, an anthropologist, has been living in an Incan village for three years. During that time Charlotte has become expert in Incan weaving by observing and imitating the master weavers in the community. When Charlotte was observing, she was collecting:
   a. primary data.
   b. secondary data.
   c. informal data.
   d. nonempirical data.

3. Charlotte wrote a book about her experience as an anthropologist living in an Incan village for three years and becoming an expert weaver. Her book was widely read by other anthropologists, including Mira, who is an expert in Navaho weaving. For Mira, Charlotte's book constitutes:
   a. hearsay data.
   b. secondary data.
   c. informal data.
   d. primary data.

4. Dr. Davenport wants to conduct a study of whether high-school students learn more efficiently while seated at a desk compared to in an easy chair. She knows there is a large research literature regarding similar influences on learning, and she wants to see if the findings hold true with a group of high school history students. Moreover, as a researcher she is uneasy with a lack of structure. You recommend that Dr. Davenport conduct a _____ study.
   a. quantitative
   b. qualitative

5. Dr. Greenhill wants to know how it is that some early adolescents come to make a connection between their personal lifestyle and environmental problems, while others don't. Furthermore, among those who see the

connection, why do some become committed to environmentalism while others do not? Dr. Greenwald looks forward to probing the thoughts of young teens on these issues and trying to see the questions and issues through "14-year-old eyes." You recommend that Dr. Greenhill conduct a _____ study.
a. quantitative
b. qualitative

6. Replications in experimental research are generally conducted to facilitate
a. internal validity.
b. external validity.
c. internal reliability.
d. external reliability.

7. Marcy is concerned that her findings may be due to an extraneous uncontrolled variable and not her treatment. Marcy is most concerned with:
a. triangulation.
b. respondent validation.
c. external validity.
d. internal validity.

8. When a qualitative researcher asks the participants, "Do the conclusions I've drawn make sense to you" the researcher is evaluating:
a. the trustworthiness of the study.
b. the reliability of the study.
c. the external validity of the study.
d. the Hawthorne effect.

9. An ordinal scale of measurement:
a. assigns a name to a category.
b. is tied to an absolute zero.
c. incorporates equal units of measurement.
d. communicates greater than and less than relationships.

10. An interval scale of measurement:
a. assigns a name to a category.
b. communicates rank-order information.
c. incorporates equal units of measurement.
d. is tied to an absolute zero.

11. The main difference between an interval and a ratio scale is that only one of them:
a. includes an absolute zero.
b. uses equal units of measurement.

c. supports the use of statistical analyses.
d. is used in research with human subjects.

12. Professor Harris is constructing a demographic questionnaire for use in a research project. One question asks students to report how politically conservative they are. It includes a 7-point scale where 1 is "not at all conservative" and 7 is "extremely conservative." This is an example of a/an:
a. nominal scale.
b. ordinal scale.
c. interval scale.
d. ratio scale.

13. Professor Harris is constructing a demographic questionnaire for use in a research project. One question asks students to report their highest level of education by choosing from these options: "some high school," "completed high school," "some college," or "completed 4-year college degree." This is an example of a/an:
a. nominal scale.
b. ordinal scale.
c. interval scale.
d. ratio scale.

14. Professor Wellman is constructing a demographic questionnaire for use in a research project. One question asks students to report whether they are currently living in an "urban," "suburban," or "rural" setting. This is an example of a/an:
a. nominal scale.
b. ordinal scale.
c. interval scale.
d. ratio scale.

15. Sean, a high school wrestler, has agreed to participate in a study of cardiovascular conditioning. He is left somewhat confused when, at the first research session, he is asked to complete a questionnaire about commonly purchased grocery items. Sean's confusion indicates a lack of _____ regarding the task.
a. construct validity
b. content validity
c. criterion validity
d. face validity

16. A researcher decides to use a high school sample to test the relationship between her new measure of empathy and a well-established measure of interpersonal sensitivity. She finds that the two instruments are highly related, which supports the _____ of the new instrument.

a. predictive validity
b. content validity
c. criterion validity
d. face validity

17. A researcher designed a new questionnaire to measure political conservatism. To test out his new instrument, he asks people leaving their polling place on election day to report their degree of political conservatism on a scale of 1 (low) to 10 (high) and then complete his questionnaire. Results show that people who identified themselves as political conservatives also had the highest scores on his questionnaire. This is an indication of the _____ of the new instrument.
a. criterion validity
b. content validity
c. face validity
d. predictive validity

18. Dick and Jane are studying aggression among preschool children. Separately, they each watch a videotape of four children interacting in a playroom and then rate each child on the level of aggression displayed during the play session. They compare their completed ratings and are pleased to note they are highly similar. This is an example of _____ reliability.
a. interrater
b. internal consistency
c. equivalent form
d. test–retest

19. Dr. Drive is testing a 10-question measure of achievement motivation. He notes that if his respondents agree with the first question, they tend to also agree with the other nine. Likewise, if his respondents disagree with the first question, they tend of disagree with the other nine. This is an indication of good _____ reliability.
a. interrater
b. internal consistency
c. equivalent form
d. test–retest

20. Professor Pickle is studying civic-mindedness among senior citizens. She administers a survey of civic mindedness to a senior citizens group in early April, then again in early May. By comparing the two sets of scores, the professor can assess the _____ reliability of her measure of civic-mindedness.
a. interrater
b. internal consistency
c. equivalent form

d. test–retest

21. Three of the following are techniques for strengthening the internal validity of a study. Which one is NOT?
   a. Conduct the study in a controlled laboratory setting.
   b. Conduct a double-blind experiment.
   c. Make participants fully aware of your expected findings.
   d. Build in opportunities for triangulation.

22. Three of the following are techniques for strengthening the external validity of a study. Which one is NOT?
   a. Conduct the study in a real-life setting.
   b. Assure that you have a representative sample.
   c. Replicate the study under a variety of relevant conditions.
   d. Allow flexibility in procedures and instruments.

23. Three of the following are techniques for strengthening the credibility of a qualitative study. Which one is NOT?
   a. Spend extensive time in the field studying the phenomenon of interest.
   b. Acquire detailed descriptions of the phenomena being studied.
   c. Exclude participants who have experiences or opinions that are very different from those of others in the study.
   d. Ask participants to comment on the conclusions being drawn from the study.

24. The requirement to keep information provided by research participants confidential applies:
   a. to legal minors (children under the age of 18), but not adults.
   b. only in cases where it is specifically requested by the participant.
   c. to all persons under almost all conditions.
   d. only in cases where participants divulge information that is potentially illegal.

25. The primary role of the IRB is to
   a. ensure researchers are aware of federal and state laws regarding the handling of data.
   b. ensure that research participants are protected from harm and invasion of privacy.
   c. provide institution-specific ethical guidelines for research involving humans.
   d. evaluate whether the researchers are qualified and the research will be meaningful.

26. Sara conducted a study in her sixth grade classroom. The study focused on students' interests in science classes. Sara shared what

individual students said about their interest in science with the seventh-grade teachers to help place students in next years' classes. Was Sara's sharing this information in accordance with ethical research practices?

a. In this case it was ethical to share students' data since it will help them in their education.
b. In this case it was ethical to share students' data since the study was conducted in school.
c. In this case, it was unethical to share students' data since that information was confidential.
d. In this case, it was unethical to share students' data since the information was anonymous.

Essay Questions

27. Professor Parsnip wants to know more about the mental process students go through as they learn about research methods. She also wants to know which instructional methods are most effective for teaching research methods to her students. Assume that Professor Parsnip decides to take a *qualitative* approach to studying these questions. State a specific research question related to her general research problem that lends itself well to a qualitative research approach. Then explain why your question is better addressed using a qualitative, rather than a quantitative, methodology.

28. Professor Parsnip wants to know more about the mental process students go through as they learn about research methods. She also wants to know which instructional methods are most effective for teaching research methods to her students. Assume that Professor Parsnip decides to take a *quantitative* approach to studying these questions. State a specific research question related to her general research problem that lends itself well to a quantitative research approach. Then explain why your question is better addressed using a quantitative, rather than a qualitative, methodology.

29. Concepts, ideas, opinions, feelings, and other intangible entities are often labeled as "insubstantial phenomena." Select one of the following 3 phenomena that would be considered insubstantial, and explain two different ways — one qualitative and one quantitative — that you might measure it: a) the closeness of undergraduates' social network friends; b) the "campus climate" at your university; c) "irrational exuberance" about the stock market.

Chapter 5

WRITING THE RESEARCH PROPOSAL

To help students recognize the elements of a well-written research proposal, there is no substitute for the opportunity to study a variety of samples. This is especially true if the samples include both well-written and poorly written research proposals. Many graduate instructors will have drafts of dissertation and thesis proposals at their disposal, and these may very well reflect a range of quality. These are a good source of examples, but it is important to get permission from the authors of the proposals prior to their use in class. In addition, it is a good idea to use these samples anonymously. This is especially critical if a work is being used as an example of a poorly written proposal or if the author may be known to students in the current class.

If such examples are not available, the collections of theses or dissertations housed at many university libraries can be another good source of examples. Of course, these are completed projects, not proposals. However, a well-written research proposal is very much like a dissertation or thesis report, except that it ends with the proposed data analysis. A little time spent browsing this collection should yield a set of examples that range in methodology, field of study, and quality.

Form small groups of students who are heterogeneous in terms of experience and research interest. Have each small group examine a number of writing samples and rank them according to quality. Ask students to provide a narrative that explains their ranking. If time allows, you may end the activity with whole-group presentations in which students summarize the strengths and weaknesses identified in the writing samples they studied.

Chapter 5

WRITING THE RESEARCH PROPOSAL

Multiple-Choice Questions

1. According to the textbook, the most effective research proposals:
   a. are a brief outline of the study you intend to conduct without an excess of detail.
   b. justify the study to be conducted by explaining how it will contribute to the professional literature.
   c. are detailed and straightforward explanations of the research problem and methodology.
   d. include an autobiographical section that explains how the researcher became interested in the research topic.

2. A proposal for a quantitative study typically begins with:
   a. a statement of the problem and its setting.
   b. a review of the literature on this topic.
   c. the hypotheses and operational definitions.
   d. an abstract summarizing the entire study.

3. A proposal for a qualitative study typically includes these elements in this order:
   a. an explanation of how the findings will fit with the larger literature.
   b. the theoretical framework and underlying assumptions.
   c. a statement of the purpose of the study and its guiding questions.
   d. the hypotheses and operational definitions.

4. Farhat is interested in the reading practices of Turkish families. He needs to prepare a research proposal for the Ministry of Education to be able to conduct the study. Which of the following is NOT likely part of his shared plan?
   a. A description of his instrumentation for the study
   b. A time schedule for how the study will progress
   c. A discussion of his sampling procedure
   d. An analysis of data he has already collected

5. Sophie is preparing a qualitative research plan for her study that explores the stories of young cancer survivors. Of the following, which is Sophie likely to include in her plan?
   a. A description of her hypothesis
   b. A discussion of the representativeness of sample
   c. A section that demonstrates relevance of the study
   d. A presentation of her initial findings

6. Amida recognizes that there are limitations to her proposed research study that explores students' opinions about campus mental health resources. As she writes her plan where will she share these limitations?
   a. The first section where she describes the problem and setting
   b. The review of related literature
   c. The section where she discusses treatment of the data
   d. The summary of her qualifications as a researcher

7. In regard to the style you will use for headings and subheadings in the research proposal:
   a. there are no special formatting requirements unless the document is a thesis or dissertation.
   b. all disciplines recognize the major formal styles, so it is a matter of personal choice.
   c. the writer is free to show creativity as long as s/he is consistent throughout the document.
   d. disciplines often dictate the use of specific formal styles, so you must find out what the expectations are.

8. Experienced writers of research proposals typically:
   a. plan to make revisions to the first draft of the proposal.
   b. do not need to make revisions to the first draft of the proposal.
   c. make revisions to the first draft of the proposal only if they are requested by a reviewer.
   d. may need to edit the first draft of the proposal for typos, but not content.

9. When writing the proposal, you should assume that the reader:
   a. will know which data analytic techniques are appropriate for your study without a detailed explanation.
   b. is an expert in the area you are addressing and will be familiar with common issues, variables, instruments, etc.
   c. can discern for him/herself what the importance of the study is.
   d. knows nothing about the proposed project, so all the details must be thoroughly explained.

10. When explaining how the data are to be analyzed and interpreted:
   a. it is best to provide only a general plan as things will probably change over the course of the study anyway.
   b. it is best to be as detailed as possible so all contingencies related to analysis and interpretation can be anticipated.
   c. it is impossible to be highly detailed until one has the actual data in hand.
   d. an overly specific plan may bias the analyses or interpretation, impairing the validity of the study.

11. Three of the following are elements in the proposal revision process. Which one is NOT?
    a. Reconsider the feasibility of what you are proposing to do.
    b. Carefully assess the logic and organization of the information in the document.
    c. Avoid breaks of 24 hours or more as the material will get too “cold” in your mind.
    d. Seek feedback from knowledgeable others.

Essay Questions

12. In regard to quantitative research proposals, novice researchers often find it very challenging and tedious to explain in detail how the data will be analyzed and interpreted in their study. Explain why it is essential that the researcher not cut corners in this section of the proposal.

Chapter 6

DESCRIPTIVE RESEARCH

An ideal way to gain insight into the meaning of descriptive statistics, such as indices of central tendency and the correlation coefficient, is to calculate these for variables that are highly familiar to students. Create a brief questionnaire to be completed by class members that includes demographic information, such as age, gender, height, program of study, semesters in college, place of birth, and so on. Make sure the questions generate both continuous and categorical data. Ask class members to complete this questionnaire.

Have the students work in small groups to do three things: (a) compile the information on the questionnaires, (b) determine which index of central tendency is most appropriate for describing each variable, and (c) calculate that index. Errors can be detected by asking groups to compare their answers.

Chapter 6

DESCRIPTIVE RESEARCH

Multiple-Choice Questions

1. Of the following research topics, which is most likely to be an observational study?
   a. The relationship between hours of exercise and sleep.
   b. The difference in minutes a day exercising between boys and girls.
   c. The types of exercise students engage in after school.
   d. Students' feelings about after-school track practice._

2. Correlational research allows the researcher to answer questions such as:
   a. what is the relationship between Variable A and Variable B?
   b. does change in Variable A cause change in Variable B?
   c. is there a significant difference between scores on Variable A and scores on Variable B?
   d. does change in Variable B causes change in Variable A?

3. Which of the following is an example of a good research question for a correlational study?
   a. What are the attitudes of the parents about our districts new homework policy?
   b. Is there a relationship between student achievement and homework completion?
   c. Are there differences in parent attitudes about homework between mothers and fathers?
   d. How much homework does the average fifth grade teacher in our district assign?

4. A researcher wishes to study developmental changes in people's preference for action movies. The researcher locates 50 people at each of the following ages: 15, 20, 25, 30, 35, 40, 45, and 50 years. She asks them to rate their preference for action movies in relation to other sorts of movies. This is an example of which type of design?
   a. longitudinal
   b. nested
   c. cross-sectional
   d. panel

5. A researcher wishes to study developmental changes in the music people prefer to listen to. The researcher locates 50 people who are about 20 years old. She sends these people a questionnaire every year for the

next 10 years asking about the types of music they prefer to listen to. This is an example of which type of design?
a. longitudinal
b. nested
c. cross-sectional
d. panel

6. Which of the following scenarios best illustrates a cohort-sequential design?
   a. Don studies high school seniors' concerns about world events during their post-secondary experiences. He surveys the entire senior class state-wide. He surveys them again every year for eight years.
   b. Melanie is conducting a survey for her thesis that examines administrative policies in middle schools that are intended to decrease bullying. After developing her survey and piloting the instrument with a small group, she then administers the instrument to a sample of 2300 middle-school administrators.
   c. Jana wants to understand what predicts student success on the statewide standardized biology competency test. She administers the Biology Interest Survey (BIS) to all of her students at the start of the term and then categorizes students into two groups: those who have taken biology before and those who have not. She then administers an in-class exam at the end of the term.
   d. Molly's study examines the benefits of exercise on weight loss. In one group she advocates exercise as well as a new diet program. In the comparison group she only presents the diet program. Those in the comparison group find out that some of Molly's clients are in an exercise program too, so they form an exercise group on their own.

7. Among survey methods, _____ generally generate the highest response rate.
   a. telephone interviews
   b. interviews using video-conferencing
   c. face-to-face interviews
   d. online surveys

8. Advantages of questionnaires include all of the following EXCEPT:
   a. large numbers of people can be contacted for a relatively low cost.
   b. data can be gathered from a large number of people in a relatively short period of time.
   c. participants may feel more confident about their anonymity and therefore respond more honestly.
   d. because questions are in written form, they are less likely to be misunderstood by respondents.

9. Regarding the length of questionnaires to be used in survey research, which of the following statements is most accurate?
   a. Including a large number of items on the survey assures that you will get useful data for all of your trouble.
   b. Keeping the survey short makes it more likely people will be willing to complete it.
   c. A relatively lengthy survey communicates your seriousness about the research endeavor so people will be more willing to complete it.
   d. Shorter surveys produce data that are ambiguous and therefore not useful.

10. "How unhappy are you with your current salary?"
    This question violates which rule of good survey writing?
   a. It is not quantifiable.
   b. It makes an unwarranted assumption.
   c. It fails to keep the respondent's task simple.
   d. It uses technical language that may not be known to all.

11. The typical return rate for a survey mailed to strangers is about:
   a. 80%
   b. 65%
   c. 50%
   d. 35%

12. Angeline is conducting an observational study of aggression on the playground. She is especially interested in whether boys are reprimanded more than girls for aggressive actions. The best instrument for her to use to collect her data would be:
   a. A checklist
   b. A rating scale
   c. A rubric
   d. A survey

13. Geoffrey is conducting a descriptive study focused on women's rights. As part of his project, he reviews articles published in U.S. newspapers between 1850 and 1940. The best instrument for him to use would be:
   a. A checklist
   b. A rating scale
   c. A rubric
   d. A survey

14. Polly Petunia is Chief Horticulturalist for the Southwest region, encompassing Arizona, New Mexico, and Texas. She wants to survey amateur gardeners in her region to determine what, if any, water conservation practices they employ in their home gardening. Polly sends

her survey to 150 randomly selected gardeners in each state. Polly is using:
a. purposive sampling.
b. proportional stratified sampling.
c. systematic sampling.
d. stratified random sampling.

15. Paul Pollster, a political psychologist, wants to determine whether rates of voter participation in his home state vary between rural, urban, and suburban voters. He notes that there are more rural voters than suburban or urban voters in the state. Paul should use _____ in this study.
a. simple random sampling
b. cluster sampling
c. proportional stratified sampling
d. systematic sampling

16. Simon Cinema wants to know what the audience thought of tonight's advanced screening of a heralded psychological thriller called "I Can't Sleep." He and his research assistants stand outside the theatre exit and ask every fifth person leaving the theatre to answer several questions about their impression of the movie. Simon is using:
a. systematic sampling.
b. stratified random sampling.
c. convenience sampling.
d. purposive sampling.

17. Danny Drive wants to know the relationship between intrinsic motivation and course grade among math students. He contacts a local professor who teaches several general education math classes and asks about the possibility of gathering data in her classes. Danny is using:
a. simple random sampling.
b. cluster sampling.
c. convenience sampling.
d. systematic sampling

18. Edward Ethics is studying public opinion regarding prayer in public schools. He plans to gather survey data from a number of churches on Sunday mornings. He also wants to include a number of people who are not associated with an organized religion in his sample. Edward is using:
a. stratified random sampling.
b. cluster sampling.
c. convenience sampling.
d. purposive sampling.

19. Graham recruited student volunteers to participate in his dissertation study. He set up several times for students to come to a specified classroom and read various types of instructional materials and to be tested. He ran all of his control conditions first and then for each session he placed all students at the session in the same treatment condition. This is problematic because those who volunteered early are likely different than those who volunteered later. This problem is primarily due to
   a. response bias.
   b. instrumentation bias.
   c. researcher bias.
   d. sampling bias.

20. Jody is interested in studying home schooling because she thinks that students who are home-schooled can't develop appropriate social skills. As part of her study she will be observing home-schooled children in social settings. Jody's planned study is particularly susceptible to
   a. response bias.
   b. researcher bias.
   c. sampling bias.
   d. instrumentation bias.

21. Rori is observing elite marching bands as part of her dissertation study. She is particularly interested in drum major leadership styles and behavior. She has found that the drum major at her current research site is very interested in showing off for her. This is an example of
   a. response bias.
   b. researcher bias.
   c. sampling bias.
   d. instrumentation bias.

Essay Questions

22. In writing the cover letter to accompany a survey, novice researchers often stress the immediacy of their need for the data. Is this the best approach to take in the cover letter? If not, what do you recommend instead?

23. The authors of your textbook suggest that sampling bias is virtually unavoidable and that it is important to disclose and discuss possible sources of bias in the study report. Do you agree? Explain your position.

24. Under what circumstances would a researcher choose a longitudinal study over a cross-sectional study? Give a specific example of a question that could be addressed with a longitudinal study and explain why that developmental design is preferred.

Chapter 7

EXPERIMENTAL, QUASI-EXPERIMENTAL, AND EX POST FACTO DESIGNS

This activity will give students practice with recognizing experimental, quasi experimental and ex post facto research designs used in the work of others.

Have students form groups of about five. Give each group a set of empirical articles that illustrate the various designs discussed in the chapter. Have students do three things for each study in their set of articles: (a) identify the independent variable(s), (b) identify the dependent variable(s), and (c) identify what type of design was used. If each group is working with the same set of articles, students can compare notes across groups to check for differing opinions.

The pool of articles collected from students for the Chapter 1 activity may provide plenty of samples of experimental and ex post facto designs. If not, you'll want to add articles to the sample set to assure that the students are working with a rich set of appropriate examples.

Chapter 7

EXPERIMENTAL, QUASI-EXPERIMENTAL, AND EX POST FACTO DESIGNS

Multiple-Choice Questions

1. In experimental design, the variable that is manipulated is the:
   a. dependent variable.
   b. independent variable.
   c. confounding variable.
   d. constant.

2. "There will be gender differences in degree of mood elevation seen in depressed clients after receiving cognitive-behavioral therapy." In this hypothesis, gender is the:
   a. dependent variable.
   b. independent variable.
   c. confounding variable.
   d. constant.

3. "There will be differences in degree of mood elevation seen in depressed clients after receiving either cognitive-behavioral or psychoanalytic therapy."
   In this hypothesis, mood elevation is the:
   a. dependent variable.
   b. independent variable.
   c. confounding variable.
   d. constant.

4. "There will be differences in degree of mood elevation seen in depressed clients after receiving either cognitive-behavioral or psychoanalytic therapy."
   During a test of this hypothesis, it was discovered that some of the participants lived with family members and others lived alone. This variable, living situation, is a/an _____.
   a. independent variable.
   b. dependent variable.
   c. constant.
   d. confounding variable.

5. Dr. Dow Jones wants to know whether a problem-based approach to teaching economics will result in higher academic performance than his traditional method. Of the six sections of Economics 101 at his university, Dr. Jones randomly assigns three sections to the traditional

method and three sections to the problem-based method. At the end of the semester, all students complete the same final exam. In this design, students studying under the traditional method constitute the:
a. placebo group.
b. treatment group.
c. sample.
d. control group.

6. Dr. Dow Jones wants to know whether a problem-based approach to teaching economics will result in higher academic performance than his traditional method. Of the six sections of Economics 101 at his university, Dr. Jones randomly assigns three sections to the traditional method and three sections to the problem-based method. At the end of semester all students complete the same final exam. In this design, students studying under the problem-based method constitute the:
a. placebo group.
b. treatment group.
c. sample.
d. control group.

7. In Katia's remedial mathematics study, she collected pretest data from a group of participants. She divided the participants into three groups. One group received no treatment, one group received instruction by a teacher-delivered intervention, one group received peer tutoring on the same problems. After the intervention she tested their math skills. With which validity threat should Katia be most concerned?
a. Maturation
b. Testing
c. Instrumentation
d. Attrition

8. Russell's study compared GPA of those students who volunteered for academic study skills training and those who did not elect to take the training. He found that those who had the training also had higher GPA. With which validity threat should Russell be most concerned?
a. Maturation
b. Instrumentation
c. History
d. Selection

9. Dr. Dow Jones wants to know whether a problem-based approach to teaching economics will result in higher academic performance than his traditional method. Of the six sections of Economics 101 at his university, Dr. Jones randomly assigns three sections to the traditional method and three sections to the problem-based method for Unit 1 of the course. Then all sections switch instructional method for Unit 2. He

plans to compare the performance of the two groups of sections on their Unit 1 and Unit 2 exams. The design of this study is:
a. within subjects (repeated measures)
b. quasi-experimental
c. true experimental
d. ex post facto

10. Penny Poodle wanted to know which dog obedience training program was more effective: Puppy Pride, the approach she has been using for any years, or Doggie Do-Right, a new approach. Penny convinced 50 human companions of untrained dogs to participate in her study. The dogs and their humans were randomly assigned to complete the Puppy Pride or Doggie Do-Right course. At the end of the training programs, all of the dogs were scored on their level of obedience on a standardized dog obedience checklist (scores could range from 10 to 100). The design of this study is:
a. one-shot experimental
b. ex post facto
c. posttest-only control-group design
d. within subjects

11. Dr. Robbins wants to know if there are different opinions regarding the value of public school education between Native Americans who have at least one relative who attended Indian Boarding School and Native Americans who have no family experience with Indian Boarding School. Dr. Robbins contacts 35 Native American participants in each group. He wants each group to include younger as well as older adults, and a mix of male and female participants. He asks each person to complete a survey about their attitudes toward public education. The design of this study is:
a. pre-experimental
b. factorial
c. true experimental
d. ex post facto

12. PJ conducts an experimental study on the effects of soft music during high stakes science testing. He randomly assigns students at the school. In one condition he does not provide music for testing while in the other group he does provide the music. He administers a pretest at the beginning of the year and a posttest at the end of the year. PJ's design is best described as a:

a. Static group comparison
b. Pretest-posttest control group design
c. Control-group-time-series design
d. Nonrandomized control-group pretest-posttest design

13. As a secondary mathematics teacher, Hernandez conducted a study that explored whether giving children recess prior to testing helped their test performance. For one of the semesters, he sends half of his classes out for 10 minutes of recess prior to testing for the other half, he provides 10 minutes of free time after the test. Which of the following best represents the design of Hernandez's study?
   a. Static-group comparison
   b. Post-test only control group
   c. Solomon four group
   d. One-shot case study

14. Millie is using a behavior checklist strategy as well as a prompted praise strategy when working with her second grade behavior disordered student, Kent. She uses both strategies within the same day going back and forth randomly between the two approaches, while recording his on-task behavior. Which of the following designs is Millie employing?
   a. Multiple baseline
   b. Alternating-treatments
   c. Control group time series
   d. Static group comparison

15. Which of the following scenarios best exemplifies a multiple-baseline design?

   a. Bryce is an occupational therapist working with Sandy, a brain-injured patient. Bryce has decided to test the effects of a graphing strategy with Sandy. He starts the graphing technique, while collecting data in the form of minutes of strength training per day. He discontinues the graphing technique still collecting minutes of strength training per day. Bryce then reintroduces the graphing technique.
   b. Laura has developed a new treatment to increase spatial ability. She randomly assigns students to either her intervention or a control condition. In the treatment condition students engage in working puzzles for twenty minutes a day for 10 days. Unfortunately, students don't like her intervention and refuse to do puzzles for all of the days.
   c. Mr. Matthews, the school psychologist, is called by the third-grade teacher because one of the students, Seamus, has been referred for a new behavioral intervention plan, in which the teacher uses nonverbal signals as a positive consequence when Seamus engages in appropriate behavior. Mr. Matthews observes Seamus's behavior in the regular classroom and in Art and Music class. He records off-task behavior, calling out, and touching others for eight days.
   d. Ewa is an athletic trainer at the university. She conducts research on violence in sport. She has designed a study to examine the effects of a new sportsmanship class. She randomly assigns teams by sport to

be in either her new class or not. That is, some teams are in the class and others are not. She then compares incidents of violence between groups.

16. Kathy trains nurses. She designed a new assertive communication unit to include in her training. She administers a pretest and then randomly assigns nurses to her treatment or a control condition. She tests their communication skills after the treatment. She sees significant differences at immediate testing but after eight weeks she retests the nurses and finds no differences between her treatment and control students. Which of the following best represents the design of Kathy's study?
    a. Non-equivalent groups
    b. Solomon four group
    c. Pretest-posttest control group
    d. Post-test only control group

17. The primary difference between the Solomon four-group design and the two-factor experimental design is that ONLY the two-factor experimental design:
    a. involves four groups of participants.
    b. requires random assignment of participants to groups.
    c. has a measurement before initial treatment.
    d. includes two different treatments.

18. A meta-analysis is used when:
    a. the researcher wishes to analyze the analyses of a number of existing studies.
    b. there is little existing literature to use as a launching pad for a new study.
    c. the researcher has no access to sophisticated statistical techniques.
    d. several researchers jointly conduct a large-scale study.

Essay Questions

19. A researcher is studying the effectiveness of two different resident adolescent drug treatment programs. Program A is used at Summerhill adolescent facility. Program B is used at Winterdale adolescent facility. Because random assignment to treatments is not possible in this situation, what can the researcher do to minimize possible effects of sample bias?

20. Factorial designs allow researchers to study the effects of more than one independent variable simultaneously. Why is this advantageous? What information can factorial designs yield that nonfactorial designs cannot?

Chapter 8

ANALYZING QUANTITATIVE DATA

This activity will give students practice with recognizing and critiquing statistical techniques commonly used in the research literature.

Have students form groups of about five. Give each group a set of articles that employ statistical analyses covered in the chapter. Have students do four things for each study in their set of articles: (a) identify the descriptive statistics used, (b) critique whether the selected descriptive statistics were appropriate given the nature of the data, (c) identify the inferential statistical tests used, and (d) critique whether the selected statistical tests were appropriate given the nature of the research question(s).

The pool of articles collected from students for the Chapter 1 activity may provide plenty of samples for this activity. If not, you'll want to add articles to the sample set to assure that the students are working with a rich set of appropriate examples.

Chapter 8

ANALYZING QUANTITATIVE DATA

Multiple-Choice Questions

1. How are inferential statistics different from descriptive statistics?
   a. Descriptive statistics allow one to draw inferences from the sample to a target population.
   b. Descriptive statistics verify the accuracy of the inferential statistics.
   c. Inferential statistics describe the results of a study.
   d. Inferential statistics allow one to draw inferences from the sample to a target population.

2. Characteristics of samples are known as:
   a. Concepts
   b. Parameters
   c. Statistics
   d. Estimations

3. Characteristics of populations are known as:
   a. Concepts
   b. Parameters
   c. Statistics
   d. Estimations

4. Marialexa conducts an economic study and asks her participants to provide information about their family incomes. First, they are asked to check one box from a list of three, indicating whether they consider themselves low-income, middle-income, or high-income. She refers to this as the self-identification variable. Then, they are asked (if they are willing) to provide their annual income in dollars. She refers to this as the dollar-figure variable. The study is both confidential and anonymous, and most people answer both questions. Which of the following statements accurately describes Marialexa's dependent variables?
   a. Both are continuous
   b. The self-identification variable is discrete and the dollar-figure variable is continuous
   c. Both are discrete
   d. The self-identification variable is continuous and the dollar-figure variable is discrete

5. Marialexa conducts an economic study and asks her participants to provide information about their family incomes. First, they are asked to check one box from a list of three, indicating whether they consider

themselves low-income, middle-income, or high-income. She refers to this as the self-identification variable. Then, they are asked (if they are willing) to provide their annual income in dollars. She refers to this as the dollar-figure variable. The study is both confidential and anonymous, and most people answer both questions. Which of the following statements accurately describes the data Marialexa collects?

a. The self-identification data are ordinal data and the dollar-figure data are ratio data.
b. The self-identification data are nominal data and the dollar-figure data are ratio data.
c. The self-identification data and the dollar-figure data both are interval data.
d. The self-identification data and the dollar-figure data both are ratio data.

6. In a normal distribution, approximately what percentage of scores falls between one standard deviation below the mean and one standard deviation above the mean?
   a. 16%
   b. 50%
   c. 68%
   d. 90%

7. A distribution of scores that is positively skewed will have a small number of scores that
   a. are very high.
   b. are very low.
   c. are clustered around the midpoint.
   d. are all the same.

8. Here is a set of scores: 5, 3, 7, 3, 6, 2, 5, 3. The mean of this set of scores is:
   a. 3
   b. 4
   c. 4.25
   d. 4.5

9. Here is a set of scores: 5, 3, 7, 3, 6, 2, 5, 3. The median of this set of scores is:
   a. 2
   a. 3
   b. 4
   c. 4.5

10. Here is a set of scores: 5, 3, 7, 3, 6, 2, 5, 3. The mode of this set of scores is:

a. 3
b. 4
c. 4.22
d. 4.5

11. The measure(s) of central tendency that is/are appropriate for use with nominal data is/are:
a. the median only.
b. the mode only.
c. the median and the mean.
d. the median and the mode.

12. When summarizing ordinal data, the most useful measure of central tendency is the:
a. arithmetic mean
b. mode
c. median
d. geometric mean

13. When reporting growth data, the most useful measure of central tendency is the:
a. arithmetic mean
b. mode
c. median
d. geometric mean

14. When the median is the measure of central tendency, the _____ is the most appropriate and informative measure of dispersion.
a. standard deviation
b. interquartile range
c. range
d. mean

15. An exam was given to two sections of the same course. In Section 1, the exam mean was 51 and the standard deviation was 7. In Section 2, the exam mean was 51 and the standard deviation was 13. Which of the following conclusions is accurate?
a. Section 1 did better on the exam than Section 2.
b. Section 1 scores were more variable than Section 2.
c. Section 1 scores were less variable than Section 2.
d. Section 1 did less well on the exam than Section 2.

16. The *z*-score, or standard score, allows the research to determine:
a. how far a target individual's score is from the group mean.
b. what percentage of individuals in the sample scored above the target individual.

c. the mean for the population based on the mean for the sample.
d. what percentage of individuals in the sample scored below the target individual.

17. The percentile rank allows the researcher to determine:
a. how far a target individual's score is from the group mean.
b. what percentage of individuals in the sample scored above the target individual.
c. the mean for the population based on the mean for the sample.
d. what percentage of individuals in the sample scored below the target individual.

18. Danzell is a purchasing agent for a major grocery store chain. He has noticed over the years that the higher the outdoor temperature, the more likely people are to buy fresh fruit. Based on Danzell's observations, we would say the correlation between outdoor temperature and buying of fresh fruit is:
a. positive.
b. negative.
c. causal.
d. moderate.

19. Frank Fitness found a correlation coefficient of –.74 between hours of strenuous exercise each week and a standard measure of body mass. He interprets this to mean that there is a:
a. strong, positive correlation between hours of strenuous exercise and body mass.
b. strong, negative correlation between hours of strenuous exercise and body mass.
c. weak, positive correlation between hours of strenuous exercise and body mass.
d. weak, negative correlation between hours of strenuous exercise and body mass.

20. Three of the following factors are associated with a relatively small standard error of the mean. Which one is NOT?
a. Sample size is relatively large.
b. Sample standard deviation is relatively small.
c. The variance in the sample is relatively large.
d. The sample is highly representative of the population.

21. Seamus has determined that there is a 95% chance that the number of people visiting the Blarney Stone in the month of June will be between 1,760 and 2,025. This is:
a. a point estimate.
b. an interval estimate.

c. a high percentile rank.
d. a strong correlation.

22. Statistical hypothesis testing involves testing the:
a. research hypothesis.
b. probability level.
c. significance level.
d. null hypothesis.

23. On the basis of statistical findings, Ron determines that the differences between males and females on a test of spatial reasoning are not due merely to chance. If, in fact, there are no gender differences in the population, Ron will have made a:
a. Type I error.
b. Type II error.

24. On the basis of statistical findings, Becky determines that the difference between males and females on a test of abstract mathematical reasoning is merely due to chance. If, in fact, there are gender differences in the population, Becky will have made a:
a. Type I error.
b. Type II error.

25. Researchers do not want to make a Type II error, because if their study has an effect, they want to be able to find it. Thus, they make their studies as powerful as they can. Of the following, the best way to increase the power of a study is to:
a. raise the significance level used for the study.
b. use inferential statistics.
c. test a large sample.
d. compute fewer statistical analyses.

26. When conducting a meta-analysis, a researcher will typically:
a. identify interval estimates for the population parameters.
b. reject the null hypothesis and conclude there's a significant effect.
c. compare the effect sizes for a set of independent studies on a single topic.
d. use nonparametric statistical techniques.

Essay Questions

27. A medical researcher is concerned about mistakenly concluding that a new medication is effective when it really is not. What type of error is the researcher concerned about making (Type I or Type II)? Describe what the researcher might do to decrease the likelihood of making that type of error. Discuss ramifications of your suggested approach for other types of error in the study.

28. Note several steps researchers can take to optimize the power of their statistical tests.

29. After completing planned analyses, the researcher must interpret the results of statistical tests. Note several steps that are involved in such interpretation.

Chapter 9

QUALITATIVE RESEARCH METHODS

To help students recognize the variety of approaches that fall under the umbrella of qualitative research, bring in examples of research reports from studies employing a case study approach, ethnography, phenomenology, grounded theory, and content analysis. Students can explore these examples to discover the elements that are common across qualitative methodologies and those elements that are unique to each approach.

To give students experience with conducting interviews, provide an interview protocol (or have the students create one), and ask pairs of students to role-play an interview. Tape-record these interviews. Then put two or three pairs together into a small group to review the taped interviews for strengths and weaknesses. Did the interview yield the needed information? If not, what could have been done differently? End the activity with a whole-group discussion of what the students learned about interviewing.

To give students experience with formal observation, select an appropriate observation instrument and arrange for the class to discreetly observe people in a public setting. After recording observations for a designated amount of time, students can compare notes to determine the degree of consistency among class members regarding what was observed and how it was recorded. Alternatively, students can be assigned to pairs and asked to engage in the observation activity as a homework assignment. This could culminate in an activity write-up or a class discussion of what was learned in the exercise, depending on time available.

Chapter 9

QUALITATIVE RESEARCH METHODS

Multiple-Choice Questions

1. Qualitative research often involves what's known as an iterative process for data collection and analysis. This terminology refers to the fact that, in qualitative research:
   a. researchers focus more on narrative data than on statistics and numbers.
   b. researchers typically do not begin by stating a hypothesis.
   c. researchers may collect and analyze data, then collect and analyze some more data.
   d. researchers first ask open-ended questions and then follow up with probing questions.

2. In qualitative research, the fact that the research methodology may be vaguely described or very general in nature at the outset of the study indicates:
   a. a normal and acceptable practice.
   b. that the study is poorly designed.
   c. that the researcher is inexperienced.
   d. a common but unprofessional practice.

3. In this type of study design, a body of material is systematically examined for patterns, themes, or biases.
   a. case study
   b. ethnography
   c. grounded theory
   d. content analysis

4. In this type of study design, a particular group of individuals is studied in depth over a defined period of time.
   a. case study
   b. ethnography
   c. phenomenology
   d. grounded theory

5. In this type of study design, the researcher studies the deep meaning an event or situation holds for other people.
   a. phenomenological
   b. ethnography
   c. grounded theory

d. content analysis

6. In this type of study design, a particular individual, program, or event is studied in depth over a defined period of time.
   a. case study
   b. ethnography
   c. phenomenology
   d. grounded theory

7. Carl Compost has been living and working on a communal organic farm for the past six months. He wants to understand the political, environmental, and social perspectives shared by the members of the commune. Dr. Compost is probably employing which of the following qualitative research designs?
   a. case study
   b. ethnographic
   c. phenomenological
   d. content analysis

8. Daniel Daring is an emerging playwright whose works have begun to stir great passions in the major U.S. cities where they are staged. Researcher Eugenia Edge is "shadowing" Mr. Daring for six months in an attempt to understand the artistic process. Dr. Edge is probably employing which of the following qualitative research designs?
   a. case study
   b. grounded theory
   c. phenomenological
   d. content analysis

9. Helen Heartwell flew to New York City a few weeks after the September 11, 2001, bombing of the World Trade Center. She wanted to know how the victims of the attack were making sense of what had happened to them. Dr. Heartwell is probably employing which of the following qualitative research designs?
   a. case study
   b. grounded theory
   c. phenomenological
   d. ethnographic

10. Richard Relic is carefully examining writings from the time of the U.S. Civil War to determine how each side characterized the position of their opponent. Dr. Relic is probably employing which of the following qualitative research designs?
   a. case study
   b. grounded theory
   c. phenomenological

d. content analysis

11. The technique of participant observation is most associated with:
   a. case study.
   b. ethnography.
   c. grounded theory.
   d. content analysis.

12. Which of the following designs is most useful in situations where current theory regarding the subject of investigation is inadequate or nonexistent?
   a. Case study
   b. Ethnography
   c. Grounded theory
   d. Phenomenology

13. Qualitative researchers often begin by asking themselves, “What needs to be studied?” and then collect preliminary data that helps to develop a more focused research question and a plan for later data collection. This type of design is known as:
   a. emerging design.
   b. case study design.
   c. qualitative design.
   d. mixed methods design.

14. Qualitative researchers can best address concerns about validity in their study design and their data by:
   a. collecting some quantitative data.
   b. ensuring that all participants provide informed consent.
   c. use one objective, reliable method for collecting data.
   d. comparing different data sources to see if they provide consistent results.

15. When selecting a sample for a qualitative study, researchers should:
   a. select a random sample of participants.
   b. select a sample most likely to provide useful information about the topic.
   c. select a large sample to increase the power of the study.
   d. select a sample that is representative of the general population.

16. Effective qualitative interviews usually require that the researcher:
   a. adhere to set of questions determined in advance.
   b. maintain an informal, friendly atmosphere.
   c. remain as objective and detached as possible.
   d. interview several participants at one time.

Essay Questions

17. A fundamental pitfall in qualitative research is to confuse the actual observations with the *interpretation* of the observations. Why is it important that these two things remain distinctly separate?

18. Dr. D is conducting an interview with Amber, who works as a cocktail waitress. Here is an excerpt:

Dr. D: What shift do you typically work?
Amber: Night. I come in a around 7:00 p.m. and work until 2:00 a.m.
Dr. D: Cocktail waitressing has a bad reputation. How bad is it to work here?
Amber: Not so bad. Most of our customers are pretty nice guys. They're regulars and they don't drink too much and get out of control. In fact, if one customer is giving me a hard time, another often steps in and helps out.
Dr. D: As the evening progresses, the men give you more and more problems, don't they? What do you do about that?
Amber: I ignore it as long as I can. I get the manager to step in if they don't straighten up.

Do you notice any problems with the interviewing technique of Dr. D? Describe the problems you see in the excerpts and then explain what Dr. D should do differently.

19. In general, research is evaluated based on whether it's well done, valid and reliable, and useful. Why, then, are open-mindedness and explicitness of assumptions and biases hallmarks of well-done qualitative research?

Chapter 10

HISTORICAL RESEARCH

This activity will help students understand the insights that can be gained by graphing or plotting a set of data so that it illustrates historical time and historical space.

Provide students with a reasonably complex chronology and an appropriate map. (Alternatively, you can ask the students to bring their own examples to class). Have students, working alone or in groups, first arrange the chronology on a time line and then plot dates and events on the map. After completing these tasks, students should report what insights about the data they gained through creation of the time line and map.

Chapter 10

HISTORICAL RESEARCH

Multiple-Choice Questions

1. Historical research is chiefly concerned with:
   a. the study of history.
   b. the meaning of past events.
   c. creating an accurate chronology of past events.
   d. determining an “official” interpretation of a historical event.

2. Historical research may include:
   a. qualitative, but not quantitative, methods.
   b. quantitative, but not qualitative, methods.
   c. both qualitative and quantitative methods.
   d. neither qualitative nor quantitative methods.

3. To a historical researcher studying the lives of women pioneers in the late 1880s, letters written by Rebecca Adams, a pioneer woman on the Nebraska plains, to her sister in Philadelphia would be:
   a. primary sources.
   b. secondary sources.

4. To a historical researcher studying the lives of women pioneers in the late 1880s, letters written by Deloris Adams of Philadelphia, describing the life of her sister, Rebecca Adams, a pioneer woman on the Nebraska plains, would be:
   a. primary sources.
   b. secondary sources.

5. Professor McGrath is studying the history of African Americans in Oklahoma. Three of the following are primary sources for Professor McGrath. Which one is NOT?
   a. Census reports from the all-Black town of Taft
   b. Photographs of Taft
   c. Diaries of a school teacher in one of the first integrated schools in Taft
   d. Articles from the Taft newspaper published in the late 19th century

6. In historical research, bias:
   a. generally does not exist to a problematic degree.
   b. is less of a problem than in other forms of research.
   c. is impossible for the researcher to detect.
   d. can be used as an advantage to the researcher.

7. In regard to bias in historical research, the researcher:
   a. must be vigilant in regard to bias in secondary data, but it is not a problem with primary data.
   b. must be vigilant in regard to bias in primary data, but it is not a problem with secondary data.
   c. must be vigilant in regard to bias in both primary and secondary data.
   d. can assume that the various biases will cancel each other out without special steps being taken by the researcher.

8. Perry Prose is in possession of a letter allegedly written by President Theodore Roosevelt during his time in office. He has taken the letter to a number of experts, who have examined the paper, ink, handwriting, and content of the letter in an attempt to establish its authenticity. Dr. Prose is attempting to establish which type of evidence regarding the validity of the letter?
   a. external evidence
   b. internal evidence

9. Fran Freedom is trying to determine what the phrase "with liberty and justice for all" from the Pledge of Allegiance meant at the time it was penned. She suspects there were actually some limits on "all." Dr. Freedom is attempting to establish which type of evidence regarding the validity of the letter?
   a. external evidence
   b. internal evidence

10. In writing a historical research report, it is best to:
   a. avoid mentioning alternative interpretations of events proposed by other scholars.
   b. leave most of the interpretation of data to the reader rather than impose your own point of view.
   c. point out the weaknesses in the arguments or assertions you are making.
   d. discuss the weaknesses, but not the strengths, of arguments put forth by other scholars.

11. In a historical research report, presentation of data and interpretation of data:
   a. are confined to separate sections of the paper.
   b. may not be included.
   c. are presented in the introduction to the paper.
   d. may be intertwined in a flowing narrative style.

Essay Questions

12. Conducting rigorous historical research involves *more than* reading historical documents, taking notes, and organizing those notes. Explain.

13. The study of how ideas developed over time is a type of conceptual or psychological historical research. Identify a key concept in your own discipline and describe in detail the types of primary sources you could use to understand its history, explaining what each source might add to the study.

Chapter 11

ANALYZING QUALITATIVE DATA

To help students recognize the variety of ways in which qualitative data are analyzed, you might begin with examples of research reports from studies employing a case study approach, ethnography, phenomenology, grounded theory, and content analysis (possibly those used while studying Chapter 9). Students can explore these examples to discover the elements that are common across qualitative analyses and those elements that are unique to each approach.

For a more hands-on approach with data analysis, you can provide qualitative data in original format. In many cases, a search of the Internet will turn up a wealth of qualitative data especially useful for content analysis — for example, transcriptions of interviews, newspaper articles, and observational field notes.

In groups, students can identify codes and/or themes, then each can code a subset of the data and compute reliability, discussing and identifying potential biases in analysis. Alternatively, groups might use separate datasets to develop unique coding systems and then exchange, so that each group attempts to use another's coding system (considering its validity).

Chapter 11

ANALYZING QUALITATIVE DATA

1. Qualitative data analysis is a process of
   a. deduction.
   b. induction.
   c. generalizability.
   d. statistical analysis.

2. Esme is interested in the personal experiences of first-year medical students and plans an ethnographic study, in which she'll collect observational field notes, extensive interview data, and diaries from the participants. For her analysis, she plans to begin by developing a start list. In other words, Esme will:
   a. make a list of categories and themes derived directly from the research problem.
   b. briefly review the data in search of topics or themes that pop out right away.
   c. divide the data into general but meaningful chunks before beginning more detailed analysis.
   d. apply her initial coding scheme to a subset of her data.

3. Kavanir has developed an initial coding scheme for his qualitative data. Ideally, his next step in his analysis should be to:
   a. develop a more detailed set of subcodes that will capture the nuances of the data.
   b. apply it to a subset of the data and then re-evaluate the codes.
   c. collect his data.
   d. compute interrater reliability.

4. Both Marianne and Bill examined the same set of qualitative data collected from couples in a study designed to understand relationship stress. Interestingly, the themes that emerged from the data were not consistent across the two researchers. Of the following, which is the most likely reason for the discrepancy?
   a. The data were not valid.
   b. The coding scheme was not reliable.
   c. Qualitative analysis is too subjective.
   d. The patterns in the data were too subtle.

5. Morisha is a policy researcher who studies parents' interest in charter schools. As part of her work she conducted extended interviews with parents who wanted to enter their children into charter schools for high school. While conducting her interviews, she noticed one family whose reasons were so unlike the others that she wondered whether she should

even include the data in her sample. Your best advice to her would be to:

a. exclude the data because the family is such an extreme outlier; maybe they weren't really honest.
b. review the interview questions to see if they're biased in some way.
c. collect more data because this family probably isn't unique.
d. keep the data, and make sure her analysis plan accounts for a broad range of responses.

6. The process of qualitative data analysis is sometimes described as a spiral, which involves four iterative steps that gradually move the process forward. The final step in the qualitative data analysis spiral is usually:
   a. quantifying certain noteworthy characteristics or events.
   b. developing a new, coherent theory to account for the findings.
   c. synthesizing and interpreting the data.
   d. writing a paper for possible publication.

7. In a grounded theory study, the focus of data analysis is to:
   a. identify a new theory arising from the data.
   b. test a theory grounded in previous research.
   c. use open categories to identify theoretical properties rather than themes.
   d. follow a structured and systematic analytical plan based on previous theories.

8. A key component of data analysis in a content analysis study is to:
   a. engage in axial coding around a core category.
   b. speculate about possible cause-and-effect relationships.
   c. systematically identify exceptions, contradictions, and outliers.
   d. identify frequencies and other summary statistics for the main coding categories.

Essay Questions

9. How can a "researcher acting as an instrument" in a qualitative study best ensure the trustworthiness of the data analysis and the conclusions?

Chapter 12

MIXED-METHODS DESIGNS

This activity will give students practice with recognizing and critiquing mixed-methods research methodology commonly used in the research literature.

Have students form groups of about five. Give each group a set of articles that employ mixed-methods research covered in the chapter. Have students do two things for each study in their set of articles: (a) identify the mixed-methods research design used, and (b) critique whether the selected methodology is appropriate given the nature of the research question(s).

The pool of articles collected from students for the Chapter 1 activity may provide plenty of samples for this activity. If not, you'll want to add articles to the sample set to assure that the students are working with a rich set of appropriate examples.

Chapter 12

MIXED-METHODS DESIGNS

Multiple-Choice Questions

1. By definition, mixed-methods research designs
   a. include both relationship questions and difference questions in the same study.
   b. include both descriptive and inferential statistics in the analysis.
   c. include both quantitative and qualitative data.
   d. include a number of quantitative measures of student performance.

2. Of the following, which best illustrates an example of a mixed-methods study?
   a. Jenka conducts interviews and observations in her study of transitional students.
   b. Vanda conducts observations and supplements her findings with class grades.
   c. Micky looks at percentages of successful transitions from the district and class grades.
   d. Svec interviews both parents and their children regarding transition.

3. A study that relies primarily on quantitative data and uses qualitative data to follow up is considered an example of which approach to mixed methods design?
   a. Multiphase iterative
   b. Embedded
   c. Exploratory
   d. Explanatory

4. Dorothy has been collecting both quantitative and qualitative data in parallel. She wanted to ensure triangulation with the hope that analyses of both data sets lead to similar conclusions about the phenomenon under investigation. Which design has Dorothy employed?
   1. Convergent
   2. Embedded
   3. Multiphase iterative
   4. Explanatory

5. Shenny has been collecting quantitative and qualitative data within the same time frame. Each data set aims to address related but different research questions. Which design has Shenny employed?
   a. Convergent
   b. Embedded

c. Multiphase iterative
d. Explanatory

6. Rodrigo wanted to investigate students' feeling about reading for pleasure. First, he interviewed students and then he used insights from the interviews to construct a survey to collect quantitative data. Which design has Rodrigo employed?
   a. Convergent
   b. Embedded
   c. Exploratory
   d. Explanatory

7. Sharon wanted to investigate student perceptions of homework. First, she distributed a survey to students and their parents and collected quantitative data. Second, she interviewed a few participants to gain insights on their survey responses. Which design has Sharon employed?
   a. Convergent
   b. Embedded
   c. Exploratory
   d. Explanatory

8. Tacita is interested in how teachers' classroom management practices change over time. She conducts observations of 8 teachers' classrooms over the course of five years. She interviews the teachers and follows up with counts of referral data, disciplinary notes in children's files, and number of notes home per teacher per year. This study can be described as a:
   a. QUAN-QUAL study
   b. QUAN-qual study
   c. QUAL-quan study
   d. Quantitative study

9. The QUAN-qual model of mixed methods design is also known as
   a. triangulation.
   b. interpretation.
   c. exploratory.
   d. explanatory.

10. Which of the following scenarios best illustrates a multiphase iterative design?
   a. A city has a typical voter turnout of 40% and so decides to implement a program to "get out the vote." First, they interview 38 voting-age adults about their voting practice. Then, six weeks before the local election, they begin an advertising campaign in the local media, community services, and neighborhoods. After the election, they see that voter turnout remained at 40%. They conduct more interviews to

find out why, and ask in particular about people's response to the advertising campaign. They then begin planning a new campaign for the next election.

b. A researcher is interested in how low-income families budget each month, identifying and balancing necessities with items that might be considered luxuries. She begins by conducting a small focus group, asking open-ended questions about budgeting and letting the group take the topic wherever they choose. From their responses, she develops a more extensive set of interview questions and conducts a series of individual interviews over a six-month period. After analyzing the data, she develops a detailed survey, which she administers to a large sample of families, asking them to fill it out every other month for a year.

c. A team of medical researchers wants to understand why parents do not consistently take their children to the hospital for evaluation after falling and hitting their heads during play or sports. They conduct a two-phase study in which 283 parents first complete a 26-item survey regarding their parenting practices, medical knowledge of head injury and concussion, and medical histories. The team analyzes the survey results and formulates a set of focused interview questions, then calls a subset of the original sample and invites them to participate in a 2-hour interview.

d. A sociologist is interested in whether the increase of gender-nontraditional characters on television affects the way people think about laws on equal treatment. He contacts a sample of 16 individuals in his community who are active in civil rights organizations and conducts four focus groups to identify target television shows and key questions to ask in a second phase of his study. He then does a qualitative content analysis of the targeted television shows and uses that analysis to develop a set of interview questions. He then contacts a random sample of individuals across the country and invites them to participate in the interview via computer.

11. Mixed-methods research that has more than one phase usually employs which type of sampling method?
    a. stratified random
    b. purposive
    c. probability
    d. systematic

12. Mixed-methods researchers should ask themselves, "Are the quantitative and qualitative data equally relevant to the same or related topics and research question(s)?" This question is most useful to help the researcher evaluate:
    a. the validity of the study.

b. the purpose of the study.
c. the type of analysis to be used in the study.
d. the conclusions drawn as a result of the study.

Essay Questions

13. What are the general advantages of conducting a mixed-methods study, rather than two or more different studies, to address a single research question?

14. Why do mixed-methods studies require special consideration of the ethics involved in conducting the study? Explain, using an example to support your claims.

Chapter 13

PLANNING AND PREPARING A FINAL RESEARCH REPORT

To assist students in recognizing different styles of technical writing, return again to the pool of articles collected for the Chapter 1 activity. Ask students to sort the articles into the various styles (APA, MLA, Chicago, etc.) they represent. Having categorized the articles, it will be easy to compare and contrast how headings, citations, referencing, and so on are handled in each style.

This group activity will help students pull together all that they have learned about research. Form small groups of students who are heterogeneous in terms of experience and research interest. Have each small group critique a research report using the checklist provided in Chapter 12. If time allows, you might ask groups to critique two research reports: one chosen as a good example of a high-quality research report and one chosen as a poor example. If each group is critiquing the same article (or articles), groups can compare critiques and discuss any differences of opinion. Alternatively, the activity could conclude with a whole-group discussion of each article and how well it conforms to standards of good technical writing.

This activity is a good assessment tool as well as a good learning tool. As part of a final exam, students can read a short research article and critique it using the checklist provided in the chapter.

Chapter 13

PLANNING AND PREPARING A FINAL RESEARCH REPORT

Multiple-Choice Questions

1. Before beginning to write a report of your own research study, you should first:
   a. confirm the required style or format.
   b. surf the Internet for published reports on similar topics.
   c. complete all data collection and analyses.
   d. find a friend or colleague who is willing to read it when it's finished.

2. Alana has completed a study on the development of political attitudes in adolescence as part of her graduate studies. She begins her dissertation by stating, "Previous research has shown…" and then summarizes the related literature on her topic. Which of the following pieces of advice is her advisor most likely to give her for revision?
   a. Introduce your hypotheses immediately after the review of the literature.
   b. Begin with a statement of the problem, in context, before introducing previous research.
   c. Discuss the studies in chronological order, ending with the most recent study, to highlight how your study fits into the history of research on this topic.
   d. Define "political attitudes" in the first paragraph, to ensure that the readers will be able to follow the literature review.

3. Marc is working on his dissertation. He wants the introductory section to be thorough and easy to understand, so for any terms that might be ambiguous, he explains how he's defined the term, why he's defined it in that particular way rather than in another way, and an example. Which of the following pieces of advice is his advisor most likely to give him for revision?
   a. Keep it up; it's important to be clear and define your terms so that everyone is on the same page.
   b. Cut back — for a dissertation, assume that your reader is familiar with your topic and explain only new terminology.
   c. Take out the examples; a definition and explanation should be clear enough to an intelligent reader.
   d. Move any operational definitions to the method section, where you should explain how variables are measured.

4. Kimathi conducted a case study that included a series of interviews. He knows that he should describe his research methods in sufficient detail

that someone else could replicate his study exactly, so in a section titled "Methodology," he includes all of his interview questions, and all accompanying follow-up probes, in a lengthy table. Which of the following pieces of advice is his advisor most likely to give him for revision?

a. keep all the questions in the table, but exclude the follow-up probes.
b. describe the purpose of the interview and how it was conducted in the method section and put all the questions into the appendix.
c. include only sample questions in the method section but put the full interview protocol in an appendix.
d. include only the interview questions that led to significant results.

5. Estrella has completed a qualitative study, and although she coded and organized her data, she did not conduct any statistical analyses. She thus does not want to present a separate results section in her paper. Which of the following pieces of advice is her advisor most likely to give her for revision?

    a. It's okay to go straight to conclusions since she doesn't have statistical results.
    b. She does not need a results section in the paper itself as long as she presents all her data in an appendix.
    c. Every paper really needs a dedicated results section, so she should include this section in the paper.
    d. However the section is labeled, she should present a summary of the data, in detail, in the body of the paper.

6. Tiffani has completed an experiment with a factorial design and begins to write the section of her report titled "Results." She starts by saying she conducted a factorial analysis of variance and then describes, in sequence, each of the other statistics she ran. Which of the following pieces of advice is her advisor most likely to give her for revision?

    a. Present only the statistics that provide evidence to support the original research hypothesis.
    b. Be sure that the reader can understand how each analysis is related to the problem or subproblem.
    c. After each individual statistic, provide a clear conclusion so that readers fully understand what it shows.
    d. Don't forget to back up your numbers with thick description of the data so that readers will be able to replicate the study.

7. Zara finished a survey study and found unexpected results — in some cases, the analyses showed that variables were correlated, but Zara had no a priori hypothesis about those variables. She is unsure whether to include these results at all in the final report. Which of the following pieces of advice is her advisor most likely to give her for revision?

a. Present the unexpected results, perhaps after she presents the results that relate directly to the original questions and hypotheses.
b. Present only the statistics that provide evidence to support the original research hypothesis in the results section and save the others for a discussion section.
c. Consider revising the introduction, possibly with a review of more literature, to see if the unexpected results should have been expected after all.
d. Present the results in the order in which she ran the analyses, without distinguishing that some were unexpected.

8. Ami conducted a quasi-experimental study for her thesis. In her final report, she includes one section titled "Results and Conclusions." In that section, she presents statistical analyses, the limitations of her study, and plans for future research. Which of the following pieces of advice is her advisor most likely to give her for revision?
   a. That looks good — everything is covered in one place so it's easy for the reader.
   b. Include interpretations of the data — how do the data help us answer the research question?
   c. Take out the section on limitations — no need to draw attention to a study's weaknesses.
   d. For a quasi-experimental study, a separate Results section is really needed.

9. Monisha conducted a narrative study that turned out exactly opposite of what she expected. She ends the report of her study with a brief summary of the findings and a more lengthy discussion of the importance of the research question, including a new literature review that might explain her unexpected findings. Which of the following pieces of advice is her advisor most likely to give her for revision?
   a. Don't lose sight of what you actually found — suggesting new research is great, but in this report focus first on interpreting the data you have and reflecting on any possible weaknesses in your design.
   b. It was smart to do a new literature review — but it should replace the old one, so that the results do not appear to be unexpected; you should reorganize the paper with a new prediction.
   c. Sometimes research doesn't turn out as we expect, but those studies generally don't get published. So don't spend too much time on a revision of this paper.
   d. Instead of a new literature review at the end of the paper, include more information about the possible weaknesses of the method, analyses, and interpretations. That way the reader will have a better understanding of why the results are so unexpected.

10. Yanfeng completes a qualitative action research study as part of his student teaching experience. His report includes front matter in which he acknowledges the people who helped with the study and an appendix showing his interview questions. When discussing his results, he presents quotations from the participants, who were students in his class. He uses only their initials, to preserve their anonymity. In his conclusions, he notes the next steps he plans to take in the classroom, based on his results. Which of the following pieces of advice is his advisor most likely to give him for revision?
    a. It's okay as is — because Yanfeng was in the classroom as a student teacher, preserving anonymity is impossible.
    b. Remove the acknowledgments so that any information about the school is anonymous, and then the initials are anonymous and so okay.
    c. Revise the results section so that the students are not identifiable, but keep the acknowledgments.
    d. Remove the acknowledgments section and the students' initials to preserve everyone's anonymity.

11. Malia did a lot of reading for her dissertation project as she tried to narrow her topic to something that was researchable. She looked at primary and secondary sources, journal articles, Internet sites, and even interviewed a few people who are prominent in the field. She kept careful notes, and when writing the literature review for her project she discussed only those studies that were directly relevant to the research question she ultimately focused on. However, she wants to be sure that her advisors know she completed a comprehensive search of the literature, so she includes a full bibliography chapter, listing all the sources she read. Which of the following pieces of advice is her advisor most likely to give her for revision?
    a. For a dissertation project, that's sensible —in a dissertation, a student needs to show that she is an expert in the area.
    b. Revise the reference list to include only those sources cited in the paper.
    c. Revise the literature review to include all the sources you read.
    d. Instead of a chapter, use an appendix of "Additional Sources" so that the readers can see the full list.

12. As part of her graduate work, Liana conducted an ethnographic study, which included several participant observers — undergraduate students who received course credit for their participation across a full semester. Liana is unsure whether to include the students as co-authors on a conference proposal she is submitting, in which she summarizes the main findings of the study. Which of the following pieces of advice is her advisor most likely to give her?
    a. Include them, because their participant observation required substantial intellectual contribution to the project.

b. Do not include them, because they received course credit for their participation.
c. Only include the students whose observations were used to support the conclusions you drew.
d. Include them for the conference presentation but not a later journal article, because journals have more rigid rules about shared authorship.

Essay Questions

13. Throughout your textbook the authors return to the importance of *interpreting* the findings of a research project. Explain why this is an essential element in a high-quality research report.

ANSWER KEY
Chapter 1
The Nature and Tools of Research

Multiple-Choice Questions

1. c
2. b
3. b
4. c
5. a
6. c
7. b
8. c
9. a
10. a
11. d
12. c
13. d
14. b
15. a

Essay Questions

16. Student examples will likely include uses such as these:
    - "*Research* paper," referring to a paper based on information found in a library
    - "Do *research* on product X," which might include reading *Consumer Reports* or consulting relevant professionals or salespeople
    - "*Research* the family history," which involves the collection of information related to family history

    In none of these cases has the "researcher" produced new information through the collection, analysis, and interpretation of data.

17. Personal benefits include the opportunity to
    - Gain expertise in a field of interest
    - Gain expertise in technical writing
    - Sharpen critical thinking skills
    - Improve written communication skills
    - Become familiar with others who share your professional interests

    Societal benefits include
    - Gaining new knowledge or insight into the research problem that was investigated
    - An accumulation of knowledge that may promote the welfare and comfort of society
    - Citizens who have well-developed critical thinking skills

18. No. Recent technological advances certainly make information access quicker and easier. They also provide much wider access to

information than was formerly possible. However, information acquired using technological advances is not necessarily different, in terms of its quality or utility, from information acquired in more tradition ways. Likewise, research based on information acquired through technological advances will not differ, in quality or utility, from research based on information acquired in more traditional ways. The method of acquisition has little or no bearing on how that information is ultimately understood and put to use.

Yes. The widespread dissemination of information that is now possible will result in greater and more widespread understanding of existing knowledge. Greater understanding of information within individuals will allow researchers to focus their work even more tightly on studies that will truly advance the state of knowledge. More widespread understanding of information within professional communities allows a greater and more diverse number of people to become actively involved in research endeavors.

Chapter 2
The Problem: The Heart of the Research Process

Multiple-Choice Questions

1. a
2. d
3. c
4. b
5. d
6. a
7. c
8. d
9. a
10. c
11. b
12. a
13. c
14. d
15. a
16. b
17. c.

Essay Questions

18. There are at least two reasons to articulate assumptions underlying a research problem. First, these assumptions will guide the selection of research questions and/or the formation of hypotheses, as well as the interpretation of the data. Clearly stating the assumptions assists the reader in evaluating the merits of the study and the conclusions drawn from it. Second, to the extent that the researcher is aware of his/her assumptions, these can be incorporated into the study design as needed to promote the validity of the conclusions drawn from the study.

19. Daphne is setting herself up for potential problems by skipping the formal proposal. Without the exercise of writing the proposal, Daphne may not stop and carefully think through all the ways in which this study may not be like previous studies. For instance, Daphne needs to consider whether the mothers of the children in this more impoverished setting will be willing or available to bring their children to the lab sessions. She also needs to consider whether the techniques being used to record peer interactions are adequate, given that this sample is more racially heterogeneous than previous samples. There may be additional or different questions that should be added to the study to capture the richness of the new situation. It may turn out that the present design will translate fairly seamlessly to the new setting. But without the detailed planning that the well-written proposal forces the researcher to undertake, it is entirely possible that Daphne will encounter a dearth of research participants and data that do not capture the richness of the interactions among the participants that do volunteer.

Chapter 3
Review of the Related Literature

Multiple-Choice Questions

1. a
2. d
3. c
4. a
5. b
6. d
7. c
8. b
9. c
10. d

Essay Questions

11. Benefits noted might include
    - Determining whether the question of interest has already been addressed in some fashion
    - Discovering new insights, perspectives, approaches, or methodologies that are relevant to the research proposal
    - Becoming informed about related work done by others
    - Discovering valuable sources of data
    - Aiding interpretation of findings
    - Avoiding the pitfalls encountered by others doing similar research

12. Kirby is right that the quality of the journal in which articles are published is one factor worth noting when making decisions about what to include in the literature review. However, there were more important distinctions Kirby should have made before taking that particular step. The keywords Kirby used in his search were overly general. His list of articles undoubtedly contains many that are only remotely related to his research problem, as well as many that are closely related. To maintain appropriate focus in the literature review, Kirby needs to first narrow his list of articles to those most relevant to his particular research problem. It may later make sense to eliminate additional articles from the list on the basis of journal quality, but that decision is premature at Kirby's present state.

13. The Internet certainly allows access to rigorous, valid information on a vast range of topics. This access may be provided through online journals or document delivery systems, or through websites associated with research labs, governmental agencies, or other trustworthy organizations and individuals. However, not all of the information on the Web goes through some type of vetting process to assure its accuracy and usefulness. Therefore, the researcher must constantly be critical of what s/he is reading. A novice researcher may or may not possess the professional judgment needed to determine the quality of information available on the Web and, hence,

make good decisions about what information is appropriately included in a literature review. A great deal of information related to professional research is not yet available on the Internet. So another concern about basing a literature review exclusively on Web sources is that relevant and important information may be missed.

Chapter 4
Planning Your Research Project

Multiple-Choice Questions

1.	d	10.	c	19.	b
2.	a	11.	a	20.	d
3.	b	12.	c	21.	c
4.	a	13.	b	22.	d
5.	b	14.	a	23.	c
6.	b	15.	d	24.	c
7.	d	16.	c	25.	b
8.	a	17.	a	26.	c
9.	d	18.	a		

Essay Questions

27. Suitable research questions will do one or more of the following:
    - Focus on creating rich descriptions of the phenomena of interest
    - Strive to understand multiple perspectives on a single phenomena
    - Focus on a deep understanding the situation from the participants' point of view
    - Focus on understanding the behavior of an individual or group

    Suitable research questions will NOT rely solely on
    - Questionnaire scores, test scores, etc.
    - Reducing complex behavior to a summary index
    - Statistical analyses

28. Suitable research questions will do one or more of the following:
    - Represent variables of interest as a score or numeric index
    - Utilize descriptive and parametric statistics to analyze data
    - Intend, at least implicitly, to draw conclusions of a general category of people beyond the immediate sample

    Suitable research questions will NOT rely solely on
    - Creating rich descriptions of the phenomena of interest
    - Deep understand of multiple perspectives on a single phenomena
    - Deep understanding of the participants' point of view.

29. A variety of different responses may be given. For example, closeness of social network friends is most likely a study about thoughts and feelings. It could be measured quantitatively by counting the number of interactions (real and/or online) that target people have with each of their “friends” or the amount of time the target people spend communicating with each “friend.” It could be measured qualitatively through interviews or possibly an ethnographic study. “Campus climate” could be measured quantitatively with rating scales or observations with checklists, or qualitatively with observations with field notes or interviews. “Irrational exuberance” could be measured quantitatively using sales figures or asset prices and qualitatively using interviews or a content analysis of newspaper or magazine articles. Other answers are certainly possible.

Chapter 5
Writing the Research Proposal

Multiple-Choice Questions

1. c
2. a
3. c
4. d
5. c
6. a
7. d
8. a
9. d
10. b
11. c

Essay Questions

12. By clearly specifying in advance how questionnaires will be scored or other measurements used, the researcher avoids gathering data that turn out to not lend themselves easily to quantification. By specifying in advance what statistical techniques will be used, the researcher avoids a situation in which the data gathered are not suitable to the planned analysis (e.g., wrong level of measurement—ordinal, interval, etc.—in the outcome measures, grouping information not available, sample size too small). By specifying in advance how the results of statistical tests will be interpreted in light of the research question, the researcher avoids ending up with results that do not fully or adequately address the research problem set forth.

Chapter 6
Descriptive Research

Multiple-Choice Questions

1. c
2. a
3. b
4. c
5. a
6. a
7. c
8. d
9. b
10. b
11. c
12. a
13. c
14. d
15. c
16. a
17. c
18. d
19. d
20. b
21. a

Essay Questions

22. A better approach is to address the needs and interests of the respondent. If the information in the survey or following from the study might be of personal interest to the potential respondent, point this out and say how s/he can gain access to your findings. If the study is linked to attaining goals the respondent may value (better schools, safer neighborhoods, more efficient local government, etc.), point this out in the cover letter. At a minimum, acknowledge the potential respondent's willingness to invest time in your project, and give him or her an estimate of how long it will take to complete the survey. Always be courteous.

23. Students should agree that disclosure of possible sources of bias is important for interpreting findings and evaluating the validity of the study. Readers need to know not only the findings of research but also the integrity of the research project. Novice researchers may feel that disclosure of weaknesses in the study will impede their chances of publication or harm their professional reputation. However, failure to acknowledge and discuss the implications of possible sampling bias is probably the greater indicator of lack of professionalism or expertise.

24. Students should present an example in which it is clear that the researchers want to study how a particular characteristic changes as people grow older. They should note that longitudinal studies require time and money, but they allow researchers to control for potential

threats to internal validity and to identify mediating and moderating variables in correlational relationships.

Chapter 7
Experimental, Quasi-Experimental, and Ex Post Facto Designs

Multiple-Choice Questions

1. b
2. b
3. a
4. d
5. d
6. b
7. b
8. d
9. a
10. c
11. d
12. b
13. a
14. b
15. c
16. c
17. d
18. a

Essay Questions

19. Suggestions may include the following:
    - Use a pretest–posttest design to assess the equivalence of the two groups on variables relevant to the study.
    - Identify matched pairs across facilities, and use only these people in the study.

20. This is advantageous because researchers are often interested in more than one effect on the dependent variable. Oceanographers may want to study effects related to both water temperature and salinity. Child welfare workers may want to study the effects of family income, mother's education level, and history of abuse on coping ability. The factorial design not only allows researchers to study these various factors independently, but their interactions can be studied as well. Studying interactions allows researchers to investigate the extent to which two or more factors influence each other. Perhaps whales encounter health problems in warmer water only at certain levels of salinity. Perhaps parents cope more successfully with stress when both family income and/or education level surpass a certain threshold. Or perhaps family income influences coping ability only when there is no history of abuse.

Chapter 8
Analyzing Quantitative Data

Multiple-Choice Questions

1.	d	10.	a	19.	b
2.	c	11.	b	20.	c
3.	b	12.	c	21.	b
4.	b	13.	d	22.	d
5.	a	14.	b	23.	a
6.	c	15.	c	24.	b
7.	a	16.	a	25.	c
8.	c	17.	d	26.	c
9.	c	18.	a		

Essay Questions

27. The researcher is concerned about making a Type I error: concluding that there are differences between the medication and placebo groups when these are really due merely to chance. The researcher can reduce her chances of making a Type I error by reducing her probability (alpha) level—from .05 to .01 or even .001, for instance. The more stringent the probability level, the less likely the researcher will be to make a Type I error. However, Type I and Type II errors exist in an inverse relationship. So as the chance of making a Type I error decreases, the chance of making a Type II error (concluding that the medication is not effective when, in fact, it is) increases.

28. Suggestions may include the following:

- Increase sample size.
- Use valid and reliable instruments.
- Use parametric, rather than nonparametric, statistical tests.
- Reduce the total number of statistical tests performed on the data.

29. Steps may include the following:

- Relate findings to the original research problem and study hypotheses.
- Relate the findings to existing research literature.
- Relate the findings to existing theory.
- Determine the practical value of the findings.
- Identify the limitations of the study.

Chapter 9
Qualitative Research Methods

Multiple-Choice Questions

1. c
2. a
3. d
4. b
5. a
6. a
7. b
8. a
9. c
10. d
11. b
12. c
13. a
14. d
15. b
16. b

Essay Questions

17. The record of the observation should be as complete and objective as possible, as it is the basis for all later interpretations. This record of the observation should not change over time, although your interpretation of it may very well change over time as more and more information comes to light.

18. Dr. D is doing at least two things wrong. She is asking Amber leading questions, which suggest or assume a certain answer. For example, she asks, "…how bad is it to work here?" and "…the men give you problems, don't they?" Also, she is not listening to Amber. Just after Amber comments on how well-behaved most of her customers are, Dr. D asks the leading question about harassment. She needs to employ only neutral, open-ended questions that do not presume a certain answer or prejudge the situation. Then, she needs to carefully listen to Amber and tailor the interview to fit the emerging responses.

19. A strong answer will center on the idea that when conducting qualitative research, the researcher brings with him or her a set of assumptions, beliefs, and biases that can influence data collection and interpretation. Recognizing and reflecting on those assumptions — and at the same time remaining open-minded about how they affect the research — help the researcher remain focused on the data themselves.

Chapter 10
Historical Research

Multiple-Choice Questions

1. b
2. c
3. a
4. b
5. d
6. d
7. c
8. a
9. b
10. c
11. d

Essay Questions

12. In addition to gathering and organizing data, the researcher must interpret those data if the resulting report is going to be a historical research study rather than a historical narrative. It is in the interpretation that the string of events takes on meaning. Students may also mention that some material of interest will exist in something other than a written form. For example, the researcher may want to review videotape, look at photographs, visit historical sites, and interview relevant individuals.

13. Answers to this question will vary depending on the concept and discipline selected. Strong responses should address a concept that clearly influenced the course of history. Primary sources that provide evidence within conceptual or historical research are often letters, newspaper articles, public broadcasts, and other types of artifacts used to disseminate new ideas.

Chapter 11
Analyzing Qualitative Data

Multiple-Choice Questions

1. b
2. a
3. b
4. b
5. d
6. c
7. a
8. d

Essay Questions

9. Qualitative researchers need to do their best to maintain "rigorous subjectivity" — acknowledging their own biases and making efforts to reduce and/or balance them. Some strategies for enhancing trustworthiness include:

- keeping detailed notes of procedures and decisions
- being careful to distinguish between observation and interpretation in notes and in analysis
- collecting different types of data (e.g., interview, observation) and comparing them during analysis (i.e., triangulation)
- having more than one person code some or all the data and retraining if reliability is low
- considering various possible explanations for outliers and apparent contradictions

Chapter 12
Mixed-Methods Designs

Multiple-Choice Questions

1. c
2. b
3. d
4. a
5. b
6. c
7. d
8. c
9. d
10. a
11. b
12. c

Essay Questions

13. Mixed-methods research fully addresses a research problem and its subproblems by utilizing both qualitative and quantitative data. Quantitative and qualitative data, especially when analyzed together, can compensate each other weaknesses and fill in gaps that otherwise might remain open. Qualitative data often provide insights about cause-and-effect relationships and form a hypothesis that will be tested with quantitative methodology. A researcher can make a more convincing case for particular conclusions if both qualitative and quantitative data lead to those conclusions. In addition, qualitative findings may reveal the meaning of quantitative data.

14. Because mixed-methods studies have two phases and often an emergent design, they tend to raise the following issues:

- Institutional approval — when results of one phase in some way guide the implementation of a subsequent phase, the researcher may have to submit two or more complete proposals to the IRB or IACUC.
- Informed consent and assurances of anonymity — Participants can reasonably expect that you won't be able to attach particular responses to particular people *unless you have explicitly told them otherwise during the informed consent process.* If you want to use participants' responses in Phase 1 to identify an appropriate and informative subsample for your follow-up in a subsequent phase, you must include that information as part of informed consent.

Chapter 13
Planning and Preparing a Final Research Report

Multiple-Choice Questions

1. a
2. b
3. a
4. c
5. d
6. b
7. a
8. b
9. a
10. c
11. b
12. a

Essay Questions

13. The reader should not be left on his or her own to make sense of the findings of a research project. This leaves the door open for misinterpretation by novice or uninformed readers and calls into question the expertise of the researcher. It is incumbent upon the author, who presumably has expertise in the area of the study, to aid the reader in seeing how the outcomes shed light on the research problem, advance the understanding of the field, call into question other findings or assumptions, and point the way to additional fruitful research problems.